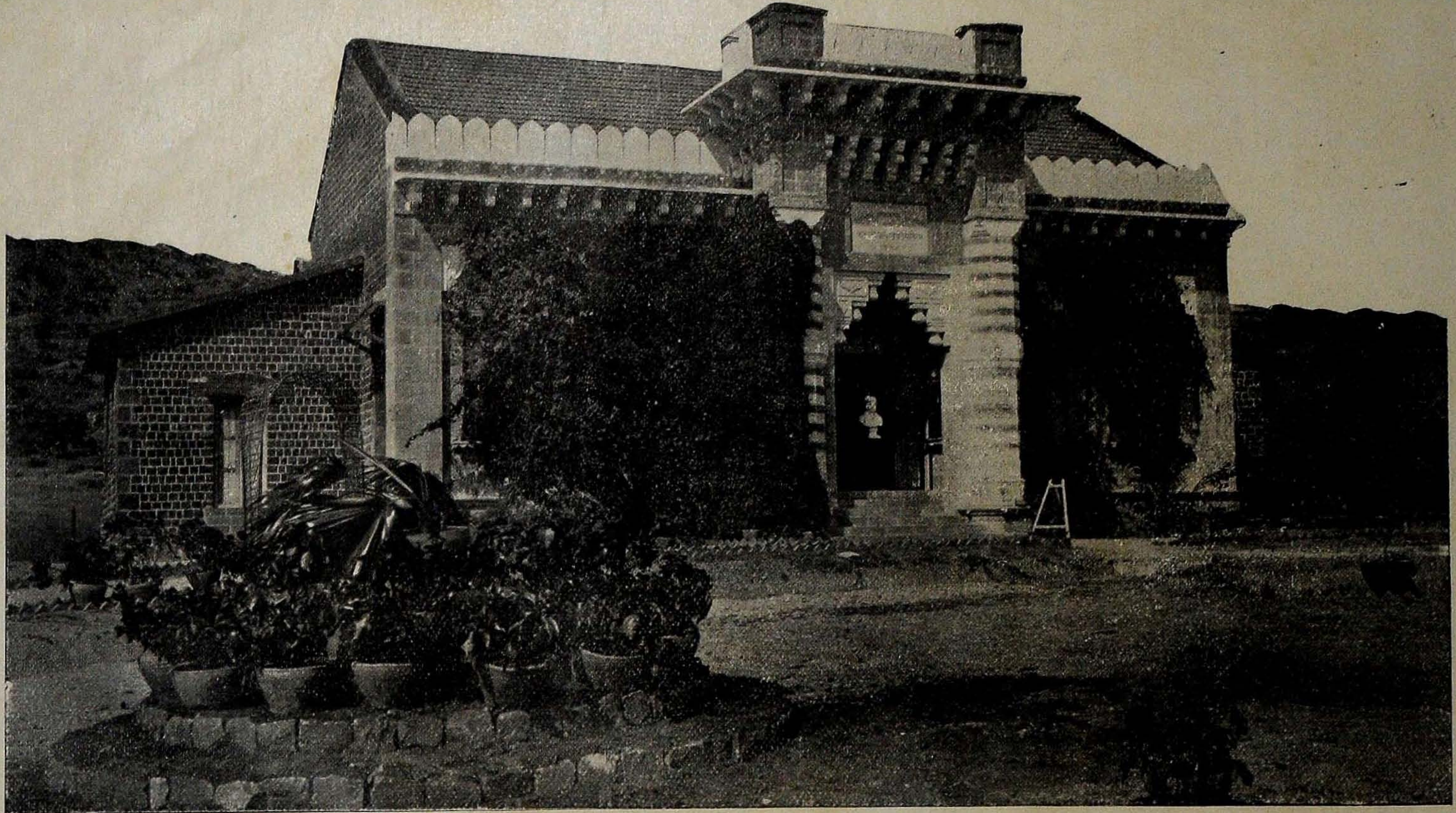

The J. N. Tata Hall of the Bhandarkar Institute, where the Exhibition was arranged.

PROCEEDINGS & TRANSACTIONS

OF THE

FIRST ORIENTAL CONFERENCE, POONA

Held on the 5th, 6th and 7th of November 1919

Vol. I

Bhandarkar Oriental Research Institute Poona

1920

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CONTENTS.

			PAGES.
	Preface		[1-11]
1	*First sitting*		1–29
	Mr. V. P. Vaidya's Speech	1–5	
	His Excellency's Speech	5–10	
	Congratulatory Telegrams	11–12	
	Presidential Address	13–27	
2	*Second sitting*		29–55
	Election of Sectional Chairmen	29–30	
	Report of the Bombay Branch of the R. A. S.	30–34	
	,, ,, Anthropological Society	35–38	
	,, ,, Jarthoshti Din ni Khol Karnari Mandali	38–41	
	,, ,, K. R. Cama Oriental Institute	41–46	
	,, ,, Bhandarkar Oriental Research Institute	46–50	
	,, ,, Karnatak Itihāsa Maṇḍala	50–53	
	,, ,, Āndhra Pariśodhaka Mahā-maṇḍali	53–55	
3	*Third sitting*		56–60
	Reading of papers in different sections		
4	*Fourth sitting*		60–71
	Reading of papers in different sections		
	Dr. Satis Chandra Vidyabhusana's address	61–67	
5	*Fifth sitting*		71–72
6	*Sixth sitting*		72–74
7	*List of Delegates*		75–85
	Patron and Vice-patrons	75	
	Representatives of Universities	75–76	
	,, of learned Institutions	76–78	
	,, of Governments and Native States	78–80	
	Delegates Elected by the Working Committee	80–85	
8	*List of articles lent to the Exhibition* ...		86–93
9	*Donations*		94
10	*Statement of Accounts* ...		95
11	*Contents of the Summaries of Papers* ...		96–100
12	*Summaries of Papers*		i–clxxxi
	Vedic section	i–xix	
	Avesta	xxi–xxviii	
	Pali and Buddhism	xxix–xxxvii	
	Philology and Prakrits	xxxix–xlix	
	Classical Literature	li–lxiii	
	Persian and Arabic	lxv–lxix	
	Dravidian languages	lxxi–lxxxiv	
	Philosophy	lxxxv–ci	
	Archaeology	ciii–cix	
	Ancient History	cxi–cxxxviii	
	Ethnology and Folklore	cxxxix–clii	
	Technical Sciences	cliii–clx	
	General	clxi–clxxxi	

The Young Volunteers of the Conference.

Working Committee of the First Oriental Conference, Poona, together with the Vice-Presidents.

The Chairman of the Reception Committee and the two Vice-Presidents in the centre and the three Secretaries behind.

PREFACE.

The idea of holding, under the auspices of the Bhandarkar Oriental Research Institute, a Conference of Orientalists in India, Burma and Ceylon,—an idea which had been in the minds of the promoters of the Institute since its very foundation–, took material shape in the following resolution of the Executive Board of the Institute, passed on the 12th of December 1918.

" That it is desirable to hold a Conference of Orientalists in India, if possible, in Poona, in the month of May (1919) and that with that view, correspondence be opened with eminent scholars in India, requesting them to communicate to the Secretary their opinions on the subject in about a month's time."

The Secretary, accordingly, about the middle of January 1919, addressed the following letter to about twenty-five prominent Orientalists in India :—

"DEAR SIR,

The Executive Board of the Bhandarkar Oriental Research Institute thinks it desirable to hold an All-India Conference of Orientalists at Poona, if possible in the month of May 1919. This would be the first Conference of its kind in India, and it will be repeated periodically at different centres.

The necessity and utility of such a Conference need not be emphasised. You are probably aware that, in the Conference of Orientalists summoned at Simla by the Hon. Sir Harcourt Butler in July 1911, Dr. Vogel had laid before the scholars assembled, a plan for holding an Oriental Congress in India (*Vide* the Report of the Conference of Orientalists, including Museums and Archaeology, held at Simla in 1911, page 66 ff.) The present plan is a modest one, in that it is

to be a Conference, at first, of all Orientalists in India, and limited in its sphere, as the memo* of notes below will show.

You are cordially invited to indicate your opinion about the scheme and the time proposed for the holding of the first Conference in Poona, and to offer any other remarks or suggestions you deem necessary. The co-operation of scholars like you is earnestly solicited. If the idea meets with general approval, further necessary steps in the matter (e. g. appointing a committee etc.) will be taken by the Institute in consultation with you all.

I shall feel obliged if you kindly communicate your views in details, so as to reach me before the end of February 1919.

Yours sincerely,
P. D. GUNE,
Secretary."

All the scholars thus consulted, unanimously hailed the idea of such a Conference and generally approved of the scheme. But the time proposed was found inconvenient to many, and the Executive Board, while changing it to October in deference to their wishes, appointed the following Working Committee (with power to add) on the 3rd of March 1919.

Prof. V. K. Rajwade, Mr. K. G. Joshi, Dr. V. S. Ghate, Dr. S. K. Belvalkar, Prof. R. D. Ranade, Dr. N G. Sardesai, Prof. R. D. Karmarkar, Mr. N. B. Utgikar, and Dr. P. D. Gune, (i. e. the nine members of the Executive Board, and Dr. V. S. Sukthankar, Prof. A. B, Dhruva, Prof. D. R. Bhandarkar, Prof. M. Hiriyanna, Dr Ganganath Jha, Mahāmahopādhyāya Harprasad Shastri, Mr. D. V. Potdar and one Representative of the Bombay Branch of the Royal Asiatic Society were elected members. Dr. S. K. Belvalkar was appointed Secretary and Prof. R. D. Karmarkar, Assistant Secretary. But on the former's declining to do the work of a Secretary, the Board on the 6th March 1919 appointed Dr.

* A memorandum of points to be considered in this connection, such as the aims and objects, ways and means, subjects to be discussed etc., was also attached ; but as it is almost the same as the one included in the *first Bulletin*, it is given further below.

P. D. Gune, Prof. R. D. Karmarkar and Mr. N. B. Utgikar Joint Secretaries.

The Secretaries, with the approval of the Committee, sent, on the 22nd of March 1919, the following letter to about five hundred scholars and Pandits all over India. This may be said to be the *first Bulletin* of the Working Committee of the Conference. As this was the first formal letter of the Conference, it is given here in extenso.

"SIR,

We are glad to inform you that the prominent Orientalists whom the Institute had approached some time ago, with the object of ascertaining their views regarding the desirability of holding an All-India Oriental Conference, have signified their approval of the idea. The Institute has therefore decided to hold a conference in Poona of the Orientalists in India, Burma and Ceylon, by the end of October or by the beginning of November next. This time has been fixed in deference to the consensus of opinion of scholars written to. The Institute has now appointed a working committee of the persons noted overleaf to carry on all work regarding the First Oriental Conference.

2. The memorandum of the subjects to be dealt with at the Conference, and of the ways and means proposed, is attached herewith, and we hope it meets with your approval. We have now to request you to lend us your hearty and active co-operation and advice, by personally attending the Conference and taking part in its deliberations, and by trying to enlist the sympathy of other lovers of Oriental learning known to you as likely to render literary or financial help. You will therefore kindly communicate to us the names of all such persons, whom we shall be very glad to approach. Awaiting the favour of an early reply,

Yours truly
P. D. GUNE.
R. D. KARMARKAR.
N. B. UTGIKAR.
Secretaries.

[*As the list of Members of the Working Committee has been already given at* *p.* [2], *it is not repeated here.*]

Memo of Notes on the All-India Conference of Orientalists of 1919.

1. Necessity :—

Conferences in other branches of learning such as Mathematics, Science, History, Economics, Engineering &c., are now held in India from time to time. A similar Conference for Oriental Subjects is a long-felt want. If this Conference meets with success, it might be held periodically at different centres of learning in India.

2. Aims and objects :—

(1) To bring together Orientalists of all provinces of India, in order to take stock of the various activities of Oriental scholars in India.

(2) To facilitate co-operation in Oriental Studies and Research.

(3) To afford opportunities to scholars to put forth their views on their respective subjects and to ventilate the difficulties experienced in the way of their special branches of study.

(4) To promote social and intellectual intercourse among Oriental scholars.

(5) To keep pace with the march of scholarship in Europe and America.

3. Subjects to be included in the programme of the Conference :—

(1) Sanskrit Language and Literature, (2) Avesta in its relation to Sanskrit, (3) Pali, (4) Jain and other Prakrits, (5) Philology of Indian Languages, ancient and modern, (6) Modern Languages and Literature in their oldest phase, (7) Archaeology, Epigraphy, Numismatics, and Ancient Art, (8) History (Ancient), Geography, and Chronology, (9) Technical Sciences (e. g. Ancient Medicine, Music &c.), (10) Ethnology and Folk-lore, (11) Persian and Arabic, (12) General :—(*a*) Present position of

the academical study of Sanskrit and allied languages (e. g. in Universities, Sanskrit Colleges, Pathashalas, &c.), (*b*) Old Shastric Learning, (*c*) A Uniform Transliteration System.

4. Membership and attendance :—

(1) All scholars and learned persons interested in the advancement of Oriental Studies, would be eligible to become members of the Conference.

(2) All Governments, Native States and Learned Institutions would be requested to send members and representatives to the Conference, and to allow scholars in their employment to take part in its deliberations.

(3) Boarding and lodging arrangements will be made, if required, for members at an extra charge.

(4) It is expected that the work of the Conference will last for three or four days, the proceedings opening with an inaugural address.

5. Deliberations etc. :—

Scholars in India, Burma and Ceylon, will be requested to atted or send papers. In order that the discussion may take a fruitful turn, it may be necessary to have summaries of the papers sent well in advance for being printed and supplied to members. All papers and important points of discussion to be ready in manuscript.

The proceedings may soon be published after the Conference is over, containing, as circumstances may permit, abstracts of papers and discussion, or even whole papers.

The balance remaining after defraying all expenses in connection with the Conference may form the nucleus of a fund for such Conferences, to be administered by a representative committee of scholars.

6. Ways and means :—

It is expected that the expenditure on account of the proposed Conference would be Rs. 8000-(eight thousand),

It is therefore proposed :—

(1) To approach all Governments, Native States and learned Institutions (Oriental) for their approval of the scheme and for rendering direct monetary help.

(2) To invite public support.

(3) To charge a small delegate's fee (some five rupees) from those who would join the Conference as members."

The response evoked by this letter was without exaggeration splendid, as some hundred and twenty-five scholars all over India promised hearty co-operation and communicated the names of the papers that they would send, and, if possible, read personally. Meanwhile, letters were sent to the various Governments, Native States and learned Institutions all over India, seeking co-operation by (i) giving monetary help, (ii) sending rare manuscripts, coins, paintings, etc. for the exhibition to be held in connection with the Conference, and (iii) sending representatives to attend the Conference. The reponse from this direction also was beyond expectation.

The Working Committee held 9 meetings in all, and considered points like (i) fees to be charged to delegates—these were fixed at Rs. 5/–, (ii) accommodation and conveyances for delegates—both were to be supplied free of charge—, (iii) election of the President of the Conference, (iv) selecting the site for the pandal and decorations, (v) settling the dates of the Conference to be the 30th, 31st of October and the 1st of November 1919, (vi) requesting His Excellency Sir George Lloyd, G. C. I. E., D. S. O., Governor of Bombay, to open the Conference and to agree to become its Patron, (vii) fixing the programme of the three days of the Conference and announcing it in the form of a bulletin, (viii) appointing sub-committees to look to the different items, like the accommodation of scholars, pandal and seating arrangements exhibition, the literary part, etc., (ix) appointing a Reception Committee with Mr. V. P. Vaidya, B. A., Bar-at-Law, J. P., of Bombay as chairman, etc.

The dates had to be subsequently changed to the 5th, 6th and 7th of November, in order to suit His Excellency who had to come down to Poona specially for the purpose.

The *Second Bulletin* gave (i) the names of the papers promised by scholars for the different sections, (ii) the names of the representatives of the Universities, learned Societies including Museums, Governments and Native States, and (iii) the pecuniary help promised by the different Governments and Native States.

The *Third Bulletin*, issued on the 2nd of October 1919, contained all information useful to delegates during travel and on arrival at Poona, such as (i) the times of arrival in Poona of the principal trains coming from important centres, (ii) clothing etc. required according to the climatic conditions of Poona, (iii) lodging and boarding arrangements for guests etc.

The *Fourth* and the most important *Bulletin*, which was issued on the 3rd of November and was personally handed over to the delegates, contained the final and correct list of papers with the names of their writers, supplementary list of representatives sent by learned societies and the detailed programme of the three days of the Conference as under :—

Programme of the three days of the Conferenee.

(*a*) First sitting: 11 a. m. to 1 p. m. on Wednesday the 5th.

(1) The speech of Mr. V. P. Vaidya, Bar-at-Law, Chairman of the Reception Committee, welcoming Their Excellencies and the guests.

(2) Opening speech of H. E. Sir George Lloyd, Governor of Bombay.

(3) Election of Sir R.G. Bhandarkar as President of the First Oriental Conference.

Proposed by :—Principal A. C. Woolner,
Seconded by :—Prof. S. Kuppuswami Shastri,
Supported by:—S. Khuda Bukhsh, Esq.

(4) Presidential Address.

(5) Election of Vice-Presidents.

(6) Appointment of a Committee to discuss suggestions sent by scholars.

(*b*) Second sitting : 2–30 to 5–50 p. m., the same day.

(1) Election of Chairmen for sectional meetings.

(2) Reports of Oriental and Research Institutions.

(3) *Mahābhārata* work ; question of drapery and progress of collation work.

(4) Reading of the following papers of general interest selected by the Committee.

Sams-ul-Ulama Sayyad Muhammad Amin, Jubbulpore.	A short Note on the Arabic Language.
Maung Schwe Zan Aung, Esq., Rangoon.	The Buddhist Philosophy of Change.
Dr. Gauranganath Banerjee, Calcutta.	Indian as known to the ancient Woild.
Prof. D. R. Bhandarkar, Calcutta.	The Origin of Indian Alphabet.
P. B. Desai Esq., Bombay.	Okhaharana in the Shahnameh.
Prof. M. Hiriyanna, Mysore.	Indian Aesthetics.
S. K. Hodiwala, Esq., Bombay.	Varuṇa, the prototype of Ahuramazda.
Dr. Ganganath Jha, Benares.	Theism of Gautama, the founder of Nyāya.

(*c*) Third sitting :—8–30 to 10–30 a. m. Thursday the 6th November.

The Conference will split itself up into the following sections :—

Sections.	Chairmen.
Veda and Avesta.	Dr. R. Zimmermann and Dr. J. J. Modi.
Classical Literature and Modern Vernaculars.	Prof. S. Kuppuswami Shastri.
Ethnology and Folklore, Persian and Arabic.	Dr. Modi and S. Khuda Bukhsh Esq.
Technical Science.	G. R. Kaye, Esq.
Archaeology.	Prof. D. R. Bhandarkar.

(*d*) Fourth sitting : 2–30 to 5–30 p. m. the same day.

Sections.	Chairmen.
Philosophy.	Dr. Ganganath Jha.
Buddhism.	Dr. Satis Chandra Vidyabhusana.
Ancient History.	Prof. Krishnaswami Aiyangar.
Philology and Prakrits.	Prof. V. K. Rajwade.

(*e*) Fifth sitting : 8–30 to 10–30 a. m., Friday, the 7th November.

General Session. The following papers selected by the Committee will be read :—

Principal A. C. Woolner, Lahore.	The philological Argument for the upper Limit to the Age of the Ṛgveda.
G. R. Kaye, Esq., Simla.	Nakṣatras and Precession.
Dr. R. C. Majumdar, Calcutta.	The early History of the Gurjaras.

Prof. Panchanana Maitra, Calcutta.	The earliest prehistoric Relations between India and the West.
Dr. J. J. Modi, Bombay.	King Akbar and the Persian translations from Sanskrit.
Prof. Radhakumud Mookerji, Mysore.	Educational Organisation in the Upaniṣads.
J. D. Nadirshah, Esq., Bombay.	Aryana Vaejo, or the Cradle of Indo-Āryan Civilisation.
Prof. V. K. Rajwade, Poona.	Asurasya Māyā in the Ṛgveda.
Dr. Satis Chandra Vidyabhusana, Calcutta.	Nāgārjuna, the earliest writer of the Renaissance Period.
Prof. N. Sahidullah, Calcutta.	Māgadhī Prakrit and Bengali.
Rev. Dr. G. P. Taylor, Ahmedabad.	Note on some Valabhi Coins.

(*f*) Sixth sitting: 2–30 to 5 p. m. the same day.

(1) Consideration of the Report of the Committee appointed at the first sitting.

(2) General resolutions regarding the constitution of the Conference, etc.

(3) Teaching of Second Languages at the Universities, Transliteration System etc.

The same Bulletin also showed where scholars were to be lodged. Four different centres had to be chosen for this purpose :—(i) the Vaidikashram, the Avate and the Lele quarters and the guest house of the Servants of India Society —all within 5 to 10 minutes' walk from the pandal erected in front of the Institute ; (ii) the National Hotel just opposite the Railway Station, where Parsee delegates were accommodated ; (iii) No. 15, Elphinstone Read, (Camp), which place with all arrangements and comforts, was kindly placed at the disposal of our Mahomedan delegates by the Hon'ble Khan Bahadur Ibrahim Haroon Jaffar, who magnanimously treated our delegates as his personal guests ; (iv) and the Sangam Bungalow, where Mr. P. E. Percival, I. C. S., then District Judge of Poona, very kindly treated our European delegates as his personal guests.

Three motor cars and seven or eight first class gharries were in attendance for five days, carrying delegates from the station to their residences and from the latter to the pandal and vice versa. A young band of enthusiastic College and High-School boys served as volunteers and were

always at the beck and call of the delegates, studying their comforts.

The whole staff of the Institute very naturally looked to one kind of business or another in connection with the Conference and did us excellent service in a spirit of noble selflessness. They did nothing more nor less than their duty as they think, but none the less, our most cordial thanks are due to them and to the young volunteers. Amongst the latter, we cannot but make special mention of Mr. Tamhankar, B. A., our Head Volunteer, and Mr. L. V. Vaidya, the son of the chairman of the Reception Committee, who managed the volunteers so ably and by personal example cheered them on to do any piece of work that fell upon them.

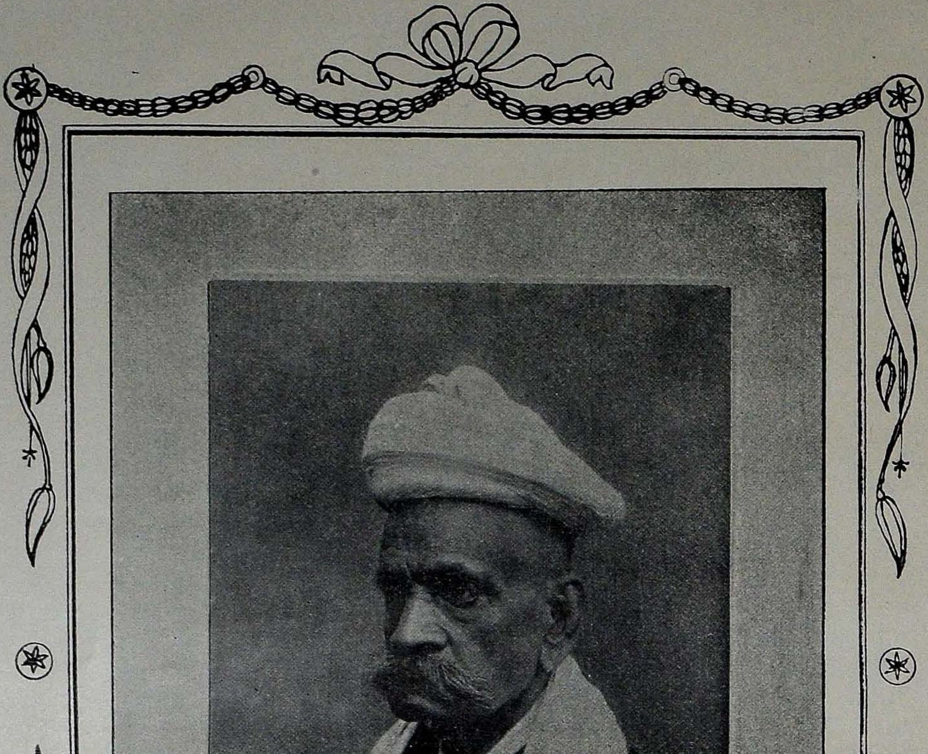
In the literary work that had to be done immediately before the Conference, for instance, the printing of the summaries of papers, we have to record our deep obligations to Prof. C. V. Rajwade, M. A., of Baroda and Prof. P. L. Vaidya, B. A., of Sangli, who, now by turns and now together, attended the Aryabhushan Press to see through the printing. Had it not been for their timely and willing help, we doubt if we could have placed the summaries in printed form (although in the last-proof stage) in the hands of our delegates in time. Our thanks are also due to the manager of the Aryabhushan Press, who did the printing work of the *Summaries* at high pressure and to the Manager of the Orphanage Press, who did the printing of the fourth Bulletin with a map of Poona, in time to be useful to the delegates, and the addresses of the Chairman of the Reception Committee and the President so beautifully.

While the Secretaries, always in consultation with the Working Committee, looked to the literary part, to the comfort of scholars, the seating and other arrangements and the actual conduct of business during the three busy days, Dr. S. K. Belvalkar, helped by representatives from different museums and libraries, was in charge of the Exhibition, where old Manuscripts, illuminated scrolls, rare coins and paintings, were beautifully arranged on tables and in show-

cases made specially for the purpose. A list of the more important exhibits with the names of Institutions, Governments and States that kindly lent them, will be found at the end of the *Proceedings*.

As to the success or otherwise of the Conference, the literary world will be able to judge when the *Proceedings* and the volume of papers will be in their hands. We, on our part, feel it our duty to acknowledge that, whatever was achieved, was mainly due to the loyal co-operation of the Working Committee, the cheerful accommodating spirit of the scholars, and particularly to the willing help always rendered by Professors D. D. Kapadia and N. D. Minocher Homji of the Deccan College and by Barrister V. P. Vaidya and Dr. Zimmermann of Bombay. These gentlemen, not only gave advice whenever consulted, but also ungrudgingly did every service that was required of them in the interest of the First Oriental Conference. In common with them and other members of the Working Committee, we share the rare comfort of having served unselfishly a great and noble cause.

P. D. GUNE,
R. D. KARMARKAR,
N. B. UTGIKAR,
Honorary Secretaries,
First Oriental Conference,
POONA.



Sir R. G. Bhandarkar, President of the First Oriental Conference, Poona.

THE

FIRST ORIENTAL CONFERENCE, POONA

PROCEEDINGS

I.—FIRST SITTING, WEDNESDAY, THE 5TH OF NOVEMBER.

11 A. M. to 1 P. M.

1. The First Oriental Conference met in a spacious pandal erected specially for the purpose in front of the Bhandarkar Institute, at 11 A. M. on Wednesday the 5th of November 1919. Many distinguished persons such as the Chief of Aundh, the Chief of Sangli, the Chief of Miraj, the Yuvarajas of Aundh and Bhor, the Hon. Sir George Carmaichael and Lady Carmaichael, the Hon. Sir Ibrahim Rahimtoola, the Hon. Mr. Curtis, the Hon. Mr. R. P. Paranjpye, the Hon. Mr. Covernton and Mrs. Covernton, Mr. G. A. Thomas and Mrs. Thomas, Dr. D. Mackichan, the Hon. Khan Bahadur Ibrahim Haroon Jaffar, and the Hon. Mr. Upasani among others, all the delegates (vide Appendix A.) and some five hundred visitors were in attendance. His Excellency Sir George Lloyd, G. C. I. E., D. S. O., Governor of Bombay, and Patron of the Conference, arrived at 11 A M. precisely and was received at the entrance by the Chief of Aundh, the Chairman of the Reception Committee and the Secretaries.

2. The proceedings began with the following address of welcome by Mr. V. P. Vaidya, B.A., Bar-at-Law, J. P., Chairman of the Reception Committee.

"YOUR EXCELLENCY, LADIES AND GENTLEMEN,

On behalf of our Reception Committee, I feel great pleasure to welcome you all to this First Conference of the

Orientalists in India, which is an event of exceptional interest and importance in the annals of learning in this country.

The idea of bringing savants of different countries together, where they can make acquaintances and discuss questions of Oriental studies, was started in Europe and in the year 1873 the First International Congress of the Orientalists met at Paris, that great city of learning, arts and progress. The next year the Congress met in London, a place again distinguished for its interests of Commerce, Educational activities and Inauguration of Western civilization in India, where the English nation has undertaken the duties of governing the people of different languages, of varied religions and of a vast indigenous literature, which, even after the work of centuries, remains only partially explored. In this the 2nd Congress, India was represented by no less a scholar than the late Mr. Shankar Pandurang Pandit, whose labour in the research of the Indian literature, recognized on all hands, was as remarkable as his services to the country, both as a distinguished officer of the Government and as an administrator of an Indian State. Several Congresses have met thereafter in the prominent capitals of Europe and I see here amongst us some of the learned men of India, who were invited there and who made impression on their brethren, which has elicited opinions of respect and admiration. To name some of them, they were Dr. Ramkrishna, Dr. J. J. Modi, the late Dr. H. H. Dhruva, and other younger men most of whom are present here.

The question of bringing the International Congress of Orientalists to India, was suggested several times, but was dropped on account of the difficulties of long distance and the time that the European scholars may not be able to spare, even in their vacations. In the meantime, India was preparing young men to take up the work so eminently done by their aged professors and friends. Some of these young men proceeded to the Universities in England and the Continent and studied the methods for which European scholarship is distinguished ; while others imbibed the spirit from the inspiring example of Gurus like Sir Ramkrishna. As a result we see to-day amongst us Indian scholars whose distinction

for learning, research and judgment can do honour even to the eminent savants under whom they took their lessons in the Indian and European Universities.

In response to the general desire of people interested in the Oriental learning, the Bhandarkar Institute proposed to have a conference in India, where the work so ably commenced in Europe and carried on for nearly a quarter of a century, would be continued with facilities and first-hand information, which could be easily made available in this country. As a prominent seat of learning in Western India, as the residence of Sir Ramkrishna Bhandarkar, whose reputation, not only in India but in the whole world, as an Orientalist of unprecedented eminence, remains unchallenged, Poona suggested itself as the best place for the first gathering of this importance. Gentlemen taking interest in the question were consulted, Government and learned bodies were approached and they all with one voice agreed to support. Your Excellency's Government was the first to come forward with a handsome donation of Rs. 1500/- and the further allowance of travelling facilities and other concessions to the scholars of this province who proposed to attend the Conference. The Imperial Government of India has been pleased to send us Rs. 1000/-. The Bengal and the United Provinces Governments have sanctioned grants of Rs. 1500/- and Rs. 2000/- respectively; the Government of Burma has sanctionsd Rs. 500/- and allowed similar facilities to scholars. His Most Exalted Highness the Nizam of Hyderabad, His Highness the Gaekwar of Baroda and H. H. the Maharaja of Mysore have contributed Rs. 1000/- each and have further favoured us by sending scholars from their States with exhibits of Manuscripts, Inscriptions, and Coins for our Exhibition. H. H. the Maharaja Holkar of Indore and H. H. the Maharaja of Bhavnagar, H. H. the Maharaja of Dhrangadhra, and the Administrator of Junagadh State have each contributed Rs. 500/-. Thakorsaheb Daulatsinghji of Limbdi, who is a good student of Sanskrit literature, has sent Rs. 250/-. A number of scholars and gentlemen interested in learning have become Vice-patrons of the Conference by subscribing Rs. 100/- each.

Our expenses were estimated at Rs. 8,000 to 10,000, but the mass of literature sent to us by way of papers by scholars, has far exceeded our expectations, and I should consider it fortunate if our expenses do not exceed Rs. 15,000.

The Universities of Calcutta, Bombay, Punjab, Allahabad and Mysore and the Council of Post-Graduate Teaching at Calcutta have sent us 20 delegates. Fourteen learned Associations and Institutions have deputed about 50 delegates. The Museums of Calcutta, Patna, Bombay, Madras, Rajkot, Bhavnagar, Bhopal, Jodhpur, the Archæological Departments of Mysore, Baroda, Madras, Punjab and Bombay, and the Cama Institute have sent us exhibits of antiquarian interest. The Governments of Baroda, Gwalior, Mysore, Bhavnagar and Jhalwar have deputed special representatives. Delegates have come from all parts of India, including such distant places as Kashmere and Ceylon.

The papers sent by scholars, which number about 120, deal with almost all the different branches of Oriental learning such as History, Inscription-reading, Philosophy, Philology—Vedic and Prakritic, Numismatics, and several other subjects which are classified by us under twelve heads. The number is so large for a session that we propose to work by sectional meetings.

One feature of our Conference will be to discuss a scheme prepared under the patronage of Shrimant Balasaheb Pant Pratinidhi of Aundh, a veritable scholar himself. The scheme relates to the preparation of a critical edition of the *Mahābhārata*, the great epic of India. The question of the *Mahābhārata* is being discussed in Europe for the last fifty years. The preparation of an authentic edition of the *Mahābhārata* is beset with difficulties which would dishearten any scholar, unless he is supported by a band of workers who are ready to devote, perhaps, their whole life to the work. Shrimant Balasaheb Pant Pratinidhi promises us help which would amount to nearly a lac of rupees, which is about a third of the estimated cost. Scholars as to whose reliability we have no doubt, have come forward to help us and a small number of them have promised to exclusively engage them-

selves for the work of bringing to light a correct and critically prepared edition of the *Mahābhārata*, which is the desideratum of each and every scholar of Indian learning.

I should not forget to mention the Institution under whose auspices we meet here. The Bhandarkar Oriental Research Institute, named after the old venerable scholar whose devotion and single-minded exertions for the propagation of Sanskrit learning have created an atmosphere in Poona, the parallel of which is extremely difficult to find, was organised by the young scholars as a memorial to their saintly Guru, who to them is an ancient Ṛṣi incarnate, a man of pure convictions and courage, an example of purity of life, purity of thought and purity of actions. Sir Dorabji Tata and the late Sir Ratan Tata were the first to endow the institution with a magnificent grant of Rs. 21,000/- from which we have erected the Tata Hall for the Bhandarkar Institute. Shet Hirji Khetsey, a rich Jain merchant, has made an equally magnificent grant of Rs. 25,000/- for adding a wing to that hall, to house the books and manuscripts which we have and which we may hereafter acquire. There are scholars and gentlemen interested in the work, who have given contributions and they are nominated patrons, vice-patrons and benefactors. The Government of Bombay have transferred to the Institute their extremely valuable collection of Sanskrit and other manuscripts. Sir Ramkrishna himself has made us a gift of his whole library, nearly 3,000 volumes of rare merit. This Institute takes the leading part in all the responsibilities of holding this conference. On behalf of this Institution also, I welcome you and say that we greatly appreciate the kindness and consideration of Your Excellency in coming here to grace the occasion and in agreeing to open the Conference. I will now request Your Excellency to formally open the Conference."

3. His Excellency, in rising to open the Conference, made the following speech :—

" MR. VAIDYA, LADIES AND GENTLEMEN,

It is with the greatest regret that I have to announce to you that Sir Ramkrishna Bhandarkar is too unwell to attend

this Conference. In view of all that he has done to bring about this Conference here at Poona, as well as in view of the affectionate regard and esteem with which his name is known throughout India, I am sure that we all at this Conference shall express our regrets at his inability to be here, and our desire that he shall soon be healthy and strong again, and able to pursue the work in research to which he has given so much time and attention.

It is a very great pleasure to me to come to the opening of this Conference, and I thank you very heartily for the cordial welcome which you have offered to me. I in turn, as the head of this Presidency, would like not only to extend my warmest welcome to all those distinguished scholars who have done us the honour to come to this Conference from all parts of India, but to express the satisfaction which this Presidency feels at being selected as the scene of your first deliberations. I trust that you will profit by your stay among us and will go away with pleasant recollections of this, the first Conference of Orientalists in India.

The history of its inception is an interesting one. International Congresses of Orientalists have, as is well-known, been regularly held in the various capitals of Europe for many years past. At the Congress that was held at Copenhagen, Professor Macdonell of Oxford put forward a proposal that one of these Congresses should be held in India, but the suggestion had to be discarded for several obvious reasons. After this, Professor Macdonell attempted to arrange for a meeting of the Indian section of the Congress at Calcutta. This proposal, too, fell through for want of support in India. In 1902 the Conference that was called the *Premier Congress international des etudes d'Extreme Orient* was held at Hanoi in Tokin under the auspices of the *Ecole Francaise d'Extreme Orient.* This Congress dealt with three out of the usual eleven sections dealt with by the European Conferences, namely, India, China and Japan, and Further India. The number of members from India who attended this Congress was very small; but the proceedings of the Congress attained, as I understand, a very high standard of scholarship, and on the whole it was a great success. In

1911, Sir Harcourt Butler called a meeting of distinguished Orientalists in India at Simla, where very interesting discussions took place, and where definite proposals were put forward by Professor Vogel for the establishment of an Oriental Research Institute and also for the inception of a Congress of Orientalists in India. As the result of these discussions and of the strong desire of those fortunate students who had come in touch with Sir Ramkrishna Bhandarkar to do honour to their revered Guru, the Bhandarkar Oriental Research Institute of Poona was founded with the help of the generous support of certain public-minded citizens of Bombay, at least one of whom may be amongst us to-day—I refer to Sir Dorab Tata. Last year the Bhandarkar Oriental Research Institute conceived the idea of holding an All-India Conference on the model suggested by Dr. Vogel, and they accordingly consulted various leading scholars and institutions in India, all of whom enthusiastically acclaimed the idea. The Institute thereupon took up the matter energetically, and this Conference at which we are privileged to attend, is the result of their labours. I am sure that you will all agree with me that Sir Ramkrishna Bhandarkar and his helpers of the Oriental Research Institute are deserving of our warmest congratulations, both for the courage and enthusiasm with which they have organized the Conference and for their good fortune in having such generous supporters. I am more usually in the position of listening to requests for money; but to day it is my task to tender thanks to all who have supported and given help to the present Conference, and confidently to appeal to them to give their generous support to the new developments which will, I am convinced, be the result of your discussions this week.

The purposes which have been in view in holding such a Conference, are very succinctly laid down in the memorandum issued by the Secretaries to the Conference, and I will not repeat them here. Such Conferences are of value not only to the scholars throughout the world, but also to the general public. Those present have the advantage of meeting each other and of discussing topics of mutual interest. Scholars abroad will read with interest the many papers which have

been contributed, and the reports of the work of the Conference which will be issued later. Lastly, the general public will have the interest in these subjects awakened or stimulated, and fresh enthusiasts in the cause of Orientalism in India will be attracted.

Sir Ramkrishna Bhandarkar, in the address which he should have read to you, but which will now be read by another gentleman, would give you two very excellent pieces of advice. He will tell you to avoid undue artificiality and to preserve a sane and judicial outlook when discussing controversial matters. This is an advice which it is very easy to give on the platform, but extremely difficult to follow when we are involved in the heat of our favourite controversy. It is not rare in the House of Commons to see two honourable members criticising each other's views in the most unmeasured terms, and, after the debate, displaying every symptom of personal amity and mutual respect. And so it is in the controversies in which you all, I am sure, indulge. Sir Ramkrishna will tell you that in the field of critical interpretation of historical records, Europe has given the lead, and that up to the present, the great bulk of critical appreciation of the various forms of ancient Indian record is the result of the work of European Orientalists. Sir Ramkrishna says that it is a natural tendency for an Indian, when discussing the past of India, to lay stress on Indian influences; and for a European to stress the outside influences which are known to have so largely affected the early growth of institutions in India. This is probably quite true, and there is no great harm in it. A European scholar has the advantage of taking an outside, detached point of view, while an Indian undoubtedly profits from his superior aptitude for dealing with Sanskrit and the mother tongues of India. Up till now the work done by European Orientalists has held the ground, but many Indians are now following the inspiring example set by Sir Ramkrishna Bhandarkar and will soon rival their European Confreres in the Indian branch of Oriental study. The holding of such Conferences as this in India will, I hope, serve to focus the attention of European scholars on the very valuable work that is being done

in India. I trust that, in the next Conference which will be held in India, European scholars who are interested in Indian problems will be invited to attend; and also that more Indians will find time and opportunity to visit Europe and discuss these questions with their brother critics. Nothing but good can come of such meetings. The prejudices of each side will be softened by debate and the history of the past will be seen in its true perspective.

There are two other matters to which I would draw your attention. I hope to be able to find time to see the very interesting collection of antiquities of all kinds which have been brought together by the kindness of many Governments, States and Societies. Such a collection is unique and should prove of very great interest to us all. Secondly, I would call your attention to the tremendous task which the Bhandarkar Oriental Research Institute has taken upon itself with the encouragement and support of the Chief of Aundh, whose munificent and princely donation I would warmly acknowledge to-day; I refer to the critical edition of the *Mahābhārata* which the Institute has undertaken. This is a monumental task, and, if undertaken at all, must be carried through with the greatest care and completeness. Not only money is needed, but also the support and encouragement of all Scholars who are really interested in the work. I trust that as a result of this gathering, this project will be put on a sound footing.

Well, ladies and gentlemen, I do not propose to speak upon any technical subject this morning; for, to judge by the very wide range of subjects on your programme, you will, in the time at your disposal, have the greatest difficulty in hearing the views of all those many distinguished scholars who are here to-day. I have always taken great interest in matters antiquarian and Oriental, both before I arrived in India during my somewhat extensive travels in the East, and also since my arrival in Bombay. I have found in the Bombay Presidency much to interest me in the many ancient monuments which exist at Poona, Bijapur, Ahmedabad, Sholapur, and even in Sind; and I have done and always will do my best to help students by paying special attention

to the preservation of such ancient monuments and other places of interest.

I cannot conclude without congratulating the Secretaries to this Conference on the very able way in which they have carried out the organisation of the meeting. I shall follow your doings with the greatest interest, and I trust that you will all enjoy your visit to Poona and will profit by the discussions and by the friendships which you will make while at Poona.

I have in final conclusion to express the very great regrets of Lady Lloyd, who, up to the last minute, had hoped to come here to-day; but who, owing to a slight riding accident, is not quite well enough to attend; otherwise it would have given her the greatest pleasure to come and meet, in common with myself, the distinguished ladies and gentlemen who have come to this Conference.

Mr. Chairman, I have much pleasure in declaring this Conference open."

4. On the conclusion of His Excellency's speech, Principal A. C. Woolner of the Oriental College, Lahore, rose to propose that Sir R. G. Bhandarkar should be the President of the First Oriental Conference. Principal Woolner said:

" YOUR EXCELLENCY, LADIES AND GENTLEMEN,

I have to perform the pleasant duty of proposing that Sir R. G. Bhandarkar should be the President of this First Conference of Orientalists in India. I see no person better fitted for the task than Sir Ramkrishna Bhandarkar, whose indefatiguable energy and patience in the cause of Oriental Research for over half a century, are so well known. From his early youth, he took part in discussing on various oriental subjects with such scholars as Drs. Weber, Bühler and Peterson. It was against the latter, that he so successfully maintained his theory about the date of Patañjali which has become one of the important landmarks in ancient Indian Chronology. His patient search for MSS and the carefully drawn up reports, so full of new matter, information and research, are too well known to be mentioned here. His

sphere of research has been a wide one, including Archaeology, Epigraphy, Ancient History, Vedic studies, Philology of the Indian Vernaculars and History of religious sects, among others. Even as late as 1913, when Sir Ramkrishna was in failing health and advanced age which cost him his sight, he has given us his magnum opus *Vaiṣṇavism, Śaivism and minor religious sects*."

Professor S. Kuppuswami Shastri of the Presidency College, Madras, in seconding the proposal said :—

" YOUR EXCELLENCY, LADIES AND GENTLEMEN,

I belong to the generation of scholars who can be called Sir Ramkrishna's literary grand-children. It would therefore be presumption for me to discant upon our grandfather's qualities. I heartily second the proposal."

Upon Prof. S. Khuda Bukhsh of the Calcutta University, and Dr. T. K. Laddu of the Queen's College, Benares, supporting the proposal, it was carried with acclamations.

5. In view of the fact that Sir Ramkrishna was prevented from attending the Conference by illness, the Conference proceeded to elect two Vice-Presidents for the conduct of business. Prof. D. R. Bhandarkar of the Calcutta University proposed, and Prof. Hiriyanna of the Maharaja's College, Mysore, seconded, that Principal A. C. Woolner, and Dr. Satis Chandra Vidyabhusana be elected Vice-Presidents of the First Oriental Conference. The proposal was carried unanimously.

6. After this Mr. V. P. Vaidya, with His Excellency's permission, read out some telegrams, and letters from distinguished persons who expressed their regret at not being able to attend the Conference, but heartily wished it a success.

Lord Willingdon of Madras, First President of the Bhandarkar Institute, in his letter to the Chairman of the Reception Committee, said :—

" I am sure and I trust the Conference will be a great success. I have a natural interest in the Institute for I

opened it, and the gentleman after whom it is named will always remain to me a great personal friend and one to whom India owes much indeed in all matters of education and literary advance."

The Chief of Ichalkaranji, Vice-President of the Institute, wired saying :—

"Regret ill-health prevents me from doing my duty towards the Bhandarkar Research Institute on this memorable occasion. Please convey my apologies to His Excellency and Sir Ramkrishna Bhandarkar."

H. H. the Yuvaraja of Mysore wrote wishing the Conference a success.

Sir Asutosh Mookerjee, President of the Council of Post-Graduate Teaching, Calcutta, sent a telegram to the following effect :—

"Please convey warmest congratulations to Conference and respectful greetings to its venerable President."

The Hon. Pandit Madan Mohan Malaviya, Pro-Vice-Chancellor of the Benares University, telegraphed, regretting inability to attend and wishing the Conference every success.

Sir John Marshall, Director General of Archaeology, while regretting inability to attend the Conference, wished it every success.

The Vice-Chancellor of the Mysore University, in his letter, also regretted inability to attend but wished the Conference complete success.

Sir P. Arunachalam, Member of the Council, Columbo, Ceylon, regretted inability to attend the Conference, where he had looked forward to meeting many scholars.

Mr. A. Hydari, Secretary to the Government of His Most Exhalted Highness the Nizam in the Educational and Judicial Departments, regretted inability to attend the Conference, though he had so much wished and liked to attend it.

Sir Deva Prasad Sarvadhikari of Calcutta, wished the Conference every success and prayed that it might lead to useful and tangible results.

The Vice-Chancellor of the Patna University also regretted inability to attend.

The Hon. Sir D. E. Wacha, the Hon. Rao Bahadur Sathe, among others, wished the Conference every success.

7. His Excellency then called upon Prof. V. K. Rajwade, Chairman of the Executive Board of the Bhandarkar Institute, to read out Sir Ramkrishna's Presidential Address. Prof. Rajwade rose and read as follows :—

" YOUR EXCELLENCY, LADIES AND GENTLEMEN,

I sincerely thank you for having elected me President of this Conference. My only qualification for this post is that I am the oldest of you all, and if time allows, I intend to give you an illustration of my age by mentioning the several controversies which I have carried on since I began life as a scholar. I take it that our body here is composed of two classes of learned men, those educated as Pandits of the old school and those who have been studying the literature of the country and the inscriptions and the antiquities which are found scattered in the different provinces, by the application of the critical and comparative method. As to the former class, there are at peresent two Śāstras mostly studied, namely Vyākaraṇa and Nyāya. In the former, Bhaṭṭoji Dīkṣita's *Siddāntakaumudī* and *Manoramā* and portions of Nāgojībhaṭṭa's *Śabdenduśekhara* and his *Paribhāṣenduśekhara* and the Navāhnikī and the Aṅgādhikāra from Patañjali's *Mahābhāṣya* are taught. My only suggestion with reference to this is, that the *Mahābhāṣya* is such an important and informing work that it should be the aim of the Vaiyākaraṇa school to read the whole of it with its pupils. I had an occasion in connection with a controversy to give the correct sense of the passage of the *Mahābhāṣya* in P. V. 3, 99 given in the footnote.* My difficulty was great espe-

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*अपण्य इत्युच्यते तत्रेदं न सिध्यति । शिवः स्कन्दो विशाख इति । किं कारणम् । मौर्यैर्हिरण्यार्थिभिरर्चाः प्रकल्पिताः । भवेत्तासु न स्यात् । यास्त्वेताः संप्रति पूजार्थास्तासु भविष्यति ।

cially because Nāgojībhaṭṭa in his *Uddyota* on the passage interprets Mauryas as manufacturers of idols. I consulted learned grammar-pandits, but they were not able to give me the correct sense off-hand, because this portion of the *Mahābhāṣya* does not come within the range of their studies. I then wrote a Sanskrit commentary on the passage, and they saw the propriety of taking Mauryas as a race of princes. My interpretation, that the Mauryas are spoken of in the passage as having used golden images for their purpose when they were in need of gold, was accepted by Prof. Kielhorn who was opposed to me in that portion of the controversy, as he wrote to me in a private letter and did not contest my view again in the *Indian Antiquary* for 1887, in which the controversy was carried on.

The other school, that of the Nyāya, deals with what is called the Navya (or modern) Nyāya, based upon the *Tatvacintāmaṇi* composed by Gaṅgeśopādhyāya of Bengal, the many abstruse commentaries beginnining with the *Dīdhiti* of Raghunāthabhaṭṭa Śiromaṇi, and ending with the *Jāgadīśī* of Jagadīśa Bhaṭṭācārya and the *Gādādharī* of Gadādhara Bhaṭṭācārya, are taught and studied in this school.

The whole learning has become extremely artificial and the student of this school acquires a certain intellectual acumen, which, however, is not of much use in ordinary matters. It is very unfortunate that this modern Nyāya hould have driven out of the field the system of Logic and Didactics or Nyāya founded by Gautama and elucidated by Vātsyāyana in his *Nyāyabhāṣya*, for about the time when this *Bhāṣya* was written, the Buddhist Mahāyāna school had acquired prominence and the two systems carried on controversies which are interesting to students of the progress of thought. Vācaspati gives some valuable information about this point and I have given elsewhere a translation of his remark in the following words :—" The revered Akṣapāda having composed the Śāstra calculated to lead to eternal bliss, and an exposition of it having been given by Pakṣilaswāmin, what is it that remains and requires that a *Vārtika* should be composed? Though the author of the *Bhāṣya* has given an exposition of the Śāstra, still

modern scholars like Diṅnāga and others having enveloped it in the darkness of fallacious arguments, that exposition is not sufficient for determining the truth. Hence the author of the *Uddyota* dispels the darkness by his work the *Uddyota*, i. e., light (torch.)". On this *Uddyota* there is a commentary by Vācaspati himself, entitled *Vārtika-tātparyaṭīkā* and on this again Udayana wrote the *Tātparya-pariśuddhi.* These works represent the Brahmanic side of the argumentation with the Mahāyānists and a study of them would be both interesting and instructive. But this study has disappeared before the cumbrous subtleties of the modern Nyāya. Still, however, I hear that some of these works are read in the Mithilā country.

There are other schools also which might be styled (i) the literary, (ii) the medical and (iii) the astronomical or astrological schools. In connection with the first, Kāvyas, dramatic plays and works on Poetics such as the *Kuvalayānanda*, the *Kāvyaprakāśa* and the *Rasagaṅgā dhara* are generally taught and studied. The course of this school might be improved by including some of the works alluded to in the last two treatises. As to the other two schools I have nothing to say. I am not aware, whether in any of the indigenous establishments, there exists a Mīmāṁsā school; but I think that there ought to be such a school in connection with Dharmaśāstra in which the most important treatises on religious and civil law should be taught and the rules of interpretation given by the Mīmāṁsakas applied for the decision of legal points. I consider it advisable that in connection with this Dharma-śāstra and Mīmāṁsa school the oldest treatises, the *Bhāṣya* of Śabaraswāmin and the *Vārtikas* of Kumārilabhaṭṭa should be regularly studied.

As to the other class of our body here, viz. that composed of critical scholars, the first thing we have to bear in mind is that the study of the Indian literature, inscriptions and antiquity according to the critical and comparative method of inquiry, so as to trace the history and progress of Indian thought and civilization, is primarily a European study. Our aim, therefore, should be to closely observe the manner

in which the study is carried on by European scholars and adopt such of their methods as recommend themselves to our awakened intellect. To an intelligent man this ought to be enough to qualify him for the pursuit of critical scholarship, and the Government of India seemed, at the Conference held at Simla in 1911, to favour the idea of opening Research Institutes at the Capital City and presidency-towns; but subsequent events led to the idea being set aside, and instead, the Government provisionally adopted the plan of sending qualified Indians to Europe and America to be trained under famous Western scholars. We have now among us several gentlemen, who have returned after serving out their period of apprenticeship. There are others among us, who have qualified themselves for the purpose by the method alluded to above by me.

Between the Western and Indian scholars a spirit of co-operation should prevail and not a spirit of depreciation of each other. We have but one common object, the discovery of the truth. Both, however, have prepossessions and even prejudices, and the same evidence may lead to their arriving at different conclusions. Often, however, when controversies are carried on, the truth comes out prominently, and there is a general acquiescence when it does so. To express the same idea in other words, the angle of vision, if I may use an expression that has become hackneyed, may be and is different. The Indian's tendency may be towards rejecting foreign influence on the development of his country's civilization and to claim high antiquity for some of the occurrences in its history.* On the other hand the European scholar's tendency is to trace Greek, Roman or Christian influence at work in the evolution of new points, and to modernize the Indian historical and literary events. It is on this account that there has been no consensus of opinion as to the appro-

* The rotable instances of the former are afforded by the persistent efforts made by some of us to prove that the twelve signs of the Zodiac are not adopted by the Hindus from the Greeks, though names of the signs are the translations of the Greek names, and even these last are given in a verse of Varāhamihira. Garga, as quoted by the latter states, "The Yavanas are the Mlecchas among whom this Śāstra (astronomy and astrology) is well known ; they even are worshipped like Ṛṣis."

ximate period when the most ancient portion of the hymns of the *Ṛgveda* was composed. Some refuse to assign it a higher antiquity than 15 centuries before Christ, while others carry it far to the beginning of Kaliyuga, i. e. to about 3101 B. C. A scholar may have conceived a prejudice against the Indian race and may look down upon the Vedic Ṛṣis. Thus our critical method is unfortunately too often vitiated by extraneous influences. But this probably is due to human weakness. A critical scholar should consider his function to be just like that of a judge in a law-court; but even there human weakness operates, and renders a number of appeals necessary, so that one judge differs from another, and so does one critical scholar from another.

Now as to the subjects to which our critical studies are directed, the principal one is that of the interpretation of the Vedas. This has been the monopoly of the European scholars and we Indians have not taken any considerable part in it. But it is indispensably necessary that we should enter the field. A European scholar may give up the function of a judge which I have attributed to him, and assume that of a prosecuting counsel. A certain individual, looking to what are called the Dāna-stutis or praises of gifts, has given it as his general opinion that the old Ṛṣis or seers had no higher aim than the materialistic one—the acquisition of wealth. Thus he bases a universal judgment on what he finds in about 15 or 16 hymns out of 1017. In the same Vaśiṣṭha Maṇḍala in which he finds such a praise of gifts (hymn 18), there are the outpourings of a contrite heart afflicted with a deep sense of sinfulness, and humbly begging to be forgiven. But such points as this last, do not attract the attention of the posecuting counsel. Then again the same scholar asserts that " The hymns of the *Ṛgveda* are for the most part composed with the technical object of some ritual and this object stands quite near to the later ritual." This is perfectly wrong. The *Ṛgveda* collection has been treated from the times of the *Aitareya Brāhmaṇa* down to the present day, as a storehouse of sacred texts to be uttered and used whenever any new ceremony has to be sanctified. Thus the Brāhmaṇa again and again states " that contributes to the success of the sacrificial worship, which is possessed of an

appropriate form, i. e., when the act performed is alluded to by the *Ṛgveda*." This rule has been followed by all writers on later ceremonies. The resemblance between the verse and the act may be simply verbal as in the prescription of '*Śukran te*, etc.' (*Ṛgveda* VI, 58, 1.) in which there is a mention of the bright form (*śukra*) of Pūṣan, i. e., his form during the continuance of the day, to the invocation of Śukra or the planet Venus in the ceremony called the 'Grahamakha.' And this adaptation of different *Ṛgveda* verses for the performance of the Soma services also, such as a Śastra repeated by the Hotā, i. e. a priest, and for the choice of the Anuvākyā and Yājyā verses, is apparent from the services and the verses themselves, so that there is no question that the hymns of the *Ṛgveda* form the storehouse for the preparation of the services required for rites that came on in later times. (See my *Report* for 1883—1884 pages 32 ff.). Thus it will be seen that the *Ṛgveda* hymns were mostly composed for purposes other than those connected with the sacrificial ritual and there are a great many hymns which are to be recited in the morning on the first day of the Soma sacrifice (*prātaranuvāka*), which are addressed to Agni, Uṣas, and the Aśvins. The commentator on the *Āśv. Śr. Sūtra* (IV, 15, 11) states that Uṣas has nothing to do with Soma sacrifice; still as the goddess is connected with the preceeding Agni and the following Aśvins, hymns to her are intended in this list. Thus the theory that the hymns to the Vedic deities were inspired by the poetic inspiration of beauty holds its ground firmly, notwithstanding the assertions of the above mentioned prosecuting counsel of a scholar. The three deities, Agni, Uṣas and Aśvins are represented as manifesting themselves in the morning. The old Āryans were accustomed to rise very early and enjoy the beauty of the Dawn and its thickening away into brighter light. It will be seen from all this that the cult followed the composition of hymns and did not precede it in a far outweighing measure.

Then again an attempt has been made to throw discredit on the ritual prescribed in the Gṛhyasūtras, and the Śrautasūtras, by tracing them to the practices of savages like the Red Indians of America; and even the Upanayana and the marriage ceremonies of the domestic

rites and the Dīkṣā ceremony are treated similarly. But the main points involved in these ceremonies are neglected. The priest in the case of Upanayana, is the father of the boy himself and not a developed form of the "medicine-man" of the barbarians. The boy is dedicated to the service of the God Savitar in the words "O God Savitar, this is thy Brahmacārin; preserve him, may he not die"; and the object of the ceremony is not to scare away the evil spirits of whom the Ācārya or father is afraid. The putting on of the hide of an antelope in the Dīkṣā and other ceremonies, the fasting which precedes them, and such other practices came down to the Hindus from their residence in the forest, where the antelope was a familiar figure, and from the necessity of preserving the body in an unencumbered condition before the performance of any rite. This is done even at the present day when the Brahmins have to perform holy functions such as meditation, celebration of the birth of such a god as Kṛṣṇa, the performance of the Śrāddha ceremony, etc., and these practices are certainly by no means to be traced to the weird performances of the medicine-man of the savages. The question of magic rites is an independent one and should not be confounded with the cults prescribed in the Sūtras. As shown by an inscription, regarding a treaty between the king of the Hittites and the king of Mitani, found in Asia Minor, the Aryans who ultimately migrated to India were the neighbours of the Assyrians or *Asuryas* and must have learnt from their connection with these and the Babylonians the art of magic, and the subsequent composition of the *Atharva-veda* must have been greatly influenced by this circumstance. Therefore, whatever weird and magical practices are to be found in Hinduism of the day, are not unlikely to be traced to this source.

Notwithstanding such aberrations of scholars as we have noticed, European scholarship deserves our highest respect, and the erring individuals are corrected by other scholars and on the whole no great harm is done. Still, we Indian scholars ought to devote ourselves strenuously to Vedic study. Yāska tells us that a science should not be taught or communicated to a fault-finding or prejudiced man and the mood to be observed in studying a subject is, according

to the *Bhagavadgītā,* that of Śraddhā, i. e., a disposition to receive whatever strikes as reasonable or an attitude of open-mindedness. We are likely to be more actuated by this spirit in the study of our Vedas than any foreign nation. Still those of us who have not become critical scholars by closely observing the method of European scholars, or serving out a period of apprenticeship to them, exhibit, a number of faults and weaknesses which entirely vitiate their reasoning. A young man, the editor of a good many Sanskrit works, asks me with a derisive smile what the necessity was of naming a MS., showing the country it came from, and the age in which it was written, when the mere fact of its presenting a varied reading is enough for all purposes. He did not know that when a judge noted down the age of a witness appearing before him, the name of the caste or the community or country to which he belonged, he got information from him which had a value in the estimate of the evidence. Similarly another young man, not fully acquainted with the critical method, said that Nāmadeva and Jñānadeva were contemporaries but that the difference between their languages was due to the mistakes of successive scribes. He thus believed that the scribes could reconstitute the grammar and lexicon of a language, forgetting to ask himself why the marvels effected by the scribes in the case of Nāmadeva should not have been effected by them in the case of Jñānadeva himself, whose language they had not altered. I do not give these as solitary instances but as due to the working of a spirit which has rendered Jñāneśwara, the author of *Jñāneśwarī*, which does not contain the name of God Viṭhoba at all and whose Marathi is very archaic, to be the same individual as the author of the *Haripāṭha*, whose *abhaṅgas* teem with allusions to Viṭhobā and Rakhumāī and whose language considerably approaches modern Marathi. The Marathi literature which has come down to us is full of such strange theories. It is a very disagreeable matter to dwell at this length on the faults of our Indian scholars, but it is an allegiance which I owe to truth.

The study of Vedantism among European scholars is dominated by the views of Prof. Deussen, who is a follower of Śaṅkarāçārya's system of world-illusion and the spiritual

monism, but it is wonderful that nobody should have penetrated below the surface of the question and seen that it is not one system that the Upaniṣads teach, but several, inconsistent with each other and each supported by an Upaniṣad text (see the Introductory chapter of my *Vaiṣṇavism and Śaivism* etc.). I have already alluded, in connection with the modern system of Nyāya which forms the stock-learning of the existing Nyāya school, to the growth of a controversy between the Brahmins and the Mahāyāna Buddhists, the Brahmanic side of which is represented by Vātsyāyana, Bharadvāja, etc., and the Buddhistic side by Diṅnāga and others. This controversy might well form the subject of close study among modern critical scholars and perhaps even a clue to Saṅkarācārya's theory of world-illusion might be found in the Nihilism of the Buddhist Mahāyāna school.

Another very important branch of our study is that of inscriptions, which are scattered over the whole country and are engraved on stones or on copper-plates. These last are mostly deeds of gifts of villages or of the revenues of villages to Brahmins or for the support of temples and other religious establishments. These deeds contain the pedigrees of the donating monarch, with notices of important points in the careers of his ancestors and in that of the reigning monarch himself. These notices have a historical value which must be judged of by our usual canons of criticism. We are thus enabled to reconstitute sketches of dynasties and of the principal points in the history of the provinces concerned. The inscriptions on stones contain records of specific events which enable us to find a clue to the progress of the occurrences described therein. We should be groping in the dark if there were no chronological light thrown on the events recorded in our reconstituted sketches. Such chronology we have for post-Christian occurrences. We have an era which originally dated from the coronation of a Śaka king and was called also the Era of Śaka kings. By a mistake in identification, such as those we have noticed in our vernacular literature, the name of the Śaka king was supplanted and that of the Śālivāhana or Sātavāhana Dynasty which followed those kings was substituted in its place. In the usual practice, the two names are put together and the era is called "Śālivāhana

Śaka" which can denote the names borne by two dynasties. There is another era to which the name of Vikramāditya is attached. There is a third bearing the name of the Gupta princes, which has been in use for some centuries. Its initial date, as compared with the Śaka era, was given by the Arabic writer Alberuni as 242 Śaka, but unfortunately that writer stated it to be the era of the extinction of the Gupta dynasty It was however found to have been used by the Gupta princes themselves and hence scholars and antiquarians not only disbelieved *this fact*, but threw discredit on Alberuni's statement of the initial date of Gupta era. Long and pungent controversies followed on this matter, new initial dates for the Gupta era being proposed. I also took part in the controversy and my conclusion, recorded at the end of a note in the Appendix A to the second edition of my *Early History of the Deccan,* is as follows :—" Thus, then, the evidence in favour of Alberuni's initial date for the Gupta era appears to me to be simply overwhelming." Subsequently in an article in the *Indian Antiquary*, Vol. XLII pp. 199 etc., I had to consider the relation between the dates found in Mandasor inscriptions. These dates are given as the years that had elapsed after the constitution of the Mālavas as a Gaṇa or a political unit. This Mālavagaṇa came afterwards to be identified with the name of Vikramāditya, just as the Śaka era came to be associated with the name of Śālivāhana or Sātavāhana. The only Vikramāditya that became famous, after the institution of the era of the political unity of the Mālavas, was Candragupta III of the imperial Gupta dynasty, who came to the throne about A. D. 400, conquered Ujjain, made it one of his capital cities, drove out the Śakas and was consequently called Śakāri. These two eras then, that of the Śaka and that of Vikrama have become our guides in determining the chronology of the post-Christian occurrences.

Another source of information is that which is afforded by comparison of the statements by foreign writers with those found in the indigenous records. Thus Megasthenes is mentioned by Greek writers as an ambassador sent by Selukos to the court of Sandracotta. Sandracotta is the same as Candagutta, the popular pronunciation of the Sansk.

rit Candragupta. Hence we gather the contemporaneity of Candragupta, the Maurya, with Selukos.

Similarly, in the inscriptions of Aśoka "Antiyoko nāma Yona Rājā" is mentioned as a friend of Aśoka, as also four others associated with Antiocus. Thus the age of Candragupta is about 325–315 B. C. and of Aśoka's coronation is about 269 B. C. Similarly we gather chronological information through the comparison of Chinese literature with the Indian. The *Kārikās* of Īśvarakṛṣṇa on Sāṅkhya philosophy and its commentary, for instance, was translated into Chinese between the years 557 A. D. and 569 A. D. Pulakeśin came to the throne in 610 A. D. and was the only southern monarch, to conquer whom the efforts of Śīlāditya or Harṣavardhana proved fruitless; he remained an independent sovereign. These facts are gathered from the writings of Hiuen Tsang and our copper-plate inscriptions, which tally with each other.

In this field of the study of inscriptions, the most confusing points are those connected with the dynasty of Kaniṣka. It is a great desideratum that all inscriptions and other scraps of information connected with the family, should be brought together and attempts should be made to fix their dates. No such comprehensive attempt has, I believe, been yet made, and it is now left to those of us who have paid special attention to this branch of our study, to make it. The *Epigraphia Indica* has been doing good service by the discovery and publication of new inscriptions and the whole department of Archaeology is devoted to making excavations and bringing to light new sources of information. Such a source is that of a Greek of the name Heliodora, having been discovered by means of an inscription at Besnagar, as a Bhāgavata and a worshipper of Vāsudeva, the rise of this sect being shown as early as the 2nd Century before the Christian era (See my *Vaiṣṇavism* etc. pp. 3–4). The field of research in this connection is extensive; to cultivate it and to bring out fruitful results, it is necessary that more of us should devote themselves to the subject.

During the period that I have been working in this line, I have had to take part in several controversies. One of

these I have already mentioned, and that is about the Gupta era. I now close the address by briefly setting forth the points involved in one that is still agitating us, and that is about the genuineness of the *Arthaśāstra* attributed to Kauṭilya, which has been recently discovered. Prof. Jacobi believes that it is the production of Cāṇakya or Viṣṇugupta, who overthrew the Nandas and raised Candragupta, the Maurya, to the throne. Prof. Hillebrandt, on the other hand, attributes the authorship to a member of the school of Kauṭilya and not to the great Cāṇakya himself. The point I wish to make out is that it was not written so early as in the times of Candragupta, the Maurya, but later. The earliest notice of Kauṭilya's work is that contained in the *Kāmasūtra* of Vātsyāyana, in which occur a number of passages which are the same as in Kauṭilya. It is then mentioned by Kāmandaka in the third century, by Daṇḍin in the sixth century and by Bāṇa in the seventh century A. D. But its existence is noticed by no writer earlier than Vātsyāyana's *Kāmasūtra*. Patañjali, the author of *Mahābhāṣya*, throws side-glances on the things existing in or about his time. He mentions the Candragupta-Sabhā, the greed of the Mauryas for gold and their selling golden idols, and the beating and the sounding of the Mṛdaṅga, Śaṅkha and Paṇava in the temples of Kubera, Rāma and Keśava, the existence of a sect of Śivabhāgavatas holding an iron lance in their hands. In the extent of the literature written in the Sanskrit language, he enumerates a number of Vedic words with the Aṅgas, Vākovākya (which is defined by Śaṅkarācārya and Raṅga Rāmānuja as Tarkaśāstra), Itihāsa, Purāṇa and Vaidyaka, but there is no room anywhere here for Kauṭilya or for his work the *Arthaśāstra*. Now as to the arguments that may be taken as pointing to an earlier date for the *Arthaśāstra*, the following may be mentioned :—

(i) Ānvīkṣikī as defined by Kauṭilya consists of Sāṅkhya, Yoga, and Lokāyata. This is the popular philosophy of the time of the *Śvetāśvataropaniṣad* and the *Bhagavadgītā*, while the Ānvīkṣikī of Vātsyāyana's *Nyāyabhāṣya* is the system of Gotama himself. They should rather show a later date for Nyāya Philosophy than an earlier one for the *Arthaśāstra*.

(ii) Then again Kauṭilya speaks of his writing a Bhāṣya on his own Sūtra and of *apadeśa* i. e., the statement of the views of others and lastly of the Siddhāntin. Now in the chapter on Tantrayuktis, he mentions this last circumstance as the *yukti* or the device for the exposition of the system, so that it should not be necessarily understood that the views of the Siddhāntin or the last writer are given by himself. Similarly in the *Vedāntasūtra*, when the views of other authors are first given, and that of Bādarāyaṇa at the end, it ought by no means to be understood that Bādarāyaṇa himself was the writer. Hence the occurrence of the name of Kauṭilya should not be taken as indicating his authorship of the whole statement.

Now as to the date of the *Arthaśāstra* itself, it depends on that of Vātsyāyana's *Kāmasūtra*. Vātsyāyana lived after Kuntala Śātakarṇi Sātavāhana, whom he mentions as having killed his queen Malayavatī in an amorous sport, by a pair of scissors. Kuntala must have flourished in the middle of the first century B. C. and consequently Vātsyāyana lived about a hundred years afterwards, so that he may be placed in the first century of the Christian era. Since these calculations are rough, we may assign him to the first or the second century A. D. This is the earliest date to which we can refer Kauṭilya. The last śloka of the chapter on Tantrayukti is:—

येन शास्त्रं च शस्त्रं च नन्दराजगता च भूः ।
अमर्षेणोद्धृतान्याशु तेन शास्त्रमिदं कृतम् ॥

the sense of which is "This Śāstra was composed by him who, unable to bear it, extricated this Śāstra, the insignia of authority and the country under the sway of Nandarāja." The second word Śāstra, which occurs in the last line, refers to the book actually written, while the word occurring in the first line alludes to the conception and development of the idea of the Śāstra. This conception and the development were attributed to Viṣṇugupta by tradition, as well as the removal of the insignia of authority and overthrow of the sway of the Nandas. The *Arthaśāstra* therefore was attributed to Kauṭilya, because traditionally he was the conceiver of it.

The study of the Avesta or the sacred literature of the Parsis has been associated with the study of our Sanskrit literature. There is a close resemblance between the languages of this literature and of the Vedic Sanskrit, so much so that, with but the slightest changes, certain passages from the one can be turned into the other. But a critical study of the Parsi Scriptures began with a French scholar named Anquetil Duperron, who came to this Presidency in the 18th century, discovered that literature, and was struck with its importance. Critical studies were undertaken in Europe and several scholars such as Martin Haug, etc., devoted their lives to it. In India critical scholarship of the European type was introduced by the late Mr. K. R. Kama, in whose memory there exists an Institute erected by his friend Mr. Sukhadwala. Avestic studies were subsequently conducted by a number of Parsi scholars, prominent among whom is Dr. Jivanji Jamshetji Modi. It is very desirable that intelligent Parsis in greater numbers should enter into the field and conduct researches into their ancient religion and customs.

The Arabic and Persian literature also should prove a fruitful field of study. Early Arabic and Persian writers, like Alberuni, have much to say about the contemporary history, religions, customs and manners of India. Their study is, therefore, bound to prove of great use. Again our modern vernaculars, especially the Aryan ones, have borrowed much from these sources and many points connected with their etymology cannot be satisfactorily solved, unless we seek help from the Persian and Arabic languages. I am glad to note that the attention of young scholars is drawn in this direction also. In this connection I have to note with satisfaction the useful work that the Hyderabad Research Society is carrying on under the patronage of His Most Exalted Highness the Nizam's Government. I do hope that scholars will take greater interest in these subjects, as also in the Chinese and other literatures, without which Oriental studies are bound to remain incomplete and one sided.

Now, gentlemen, I close. I am very glad to observe that critical scholarship has, notwithstanding the defects alluded

to by me, been flourishing among us. Good books and lectures have recently been published, especially in connection with the Calcutta University. Our own University has not extended that support to original research that we might expect from it. Still, I close the active years of my life with an assured belief that sound critical scholarship has grown up among us, and that it will maintain its own against aspersions and attacks. I am very glad to observe that a large number of papers will be read at the session we begin to-day, a good many of which must be important, so that in every way we have reasons to congratulate ourselves; and this our Conference, will, I trust, be a landmark in the progress of our studies."

8. His Excellency then called upon Dr. Ganganath Jha of the Sanskrit College, Benares, to move that a Committee consisting of the following persons be appointed to consider the suggestions received from various scholars and to frame a constitution for the Conference and to report at the last sitting of the Conference.

Members of the Committee:—1. Principal A. C. Woolner, 2. Dr. Satis Chandra Vidyabhusana, 3. Mr. V. P. Vaidya, 4 Prof. S. Kuppuswami Shastri, 5. Dr. T. K. Laddu, 6. Mr. J. S. Kudalkar, 7. Prof. M. Hiriyanna, 8. Prof. Khuda Bukhsh, 9. Dr. S. K. Belvalkar, and 10, 11, 12 the three Secretaries of the Conference viz. Dr. P. D. Gune, Mr. N. B. Utgikar and Prof. R. D. Karmarkar.

Dr. Jha, while proposing the motion committed to his care, said that the Secretaries had received letters from various scholars on a variety of subjects like the preservation of Sanskrit MSS., a Central All-India Research Institute, undertaking different works that could not be carried out by individual effort, constitution of the Conference, encouragement of indigenous Oriental learning etc. It was impossible to discuss them in a large assembly like the Conference and arrive at any definite conclusion. Such a work could only be done by a small representative committee. It was therefore that he had proposed the Committee.

The proposal was duly seconded by Prof. A. B. Dhruva of Ahmedabad and was accepted by the Conference.

9. His Excellency, thereafter, announced that a gentleman, who wished to remain anonymous, had offered a prize

of Rs. 2000 for the best historical review of Indian commerce from the earliest times to the present day.

The conditions of the prize and other details were left to be decided later in consultation with the donor.

10. Dr. H. H. Mann, Chairman of the Council of the Bhandarkar Institute, then announced, with the permission of His Excellency, that the Institute would be At Home to the delegates of the Conference on Friday the 7th instant at 5 P. M.

11. Shrimant Balasaheb Pant Pratinidhi, Chief of Aundh, then rose to propose a vote of thanks to His Excellency, and said :—

"YOUR EXCELLENCY,

We are all thankful to you for having specially come down to Poona for this occasion. We knew of the keen interest you took in Oriental learning and Oriental affairs in general, and we trusted that you would grace the occasion by your presence, as you have done, even at the cost of some personal inconvenience."

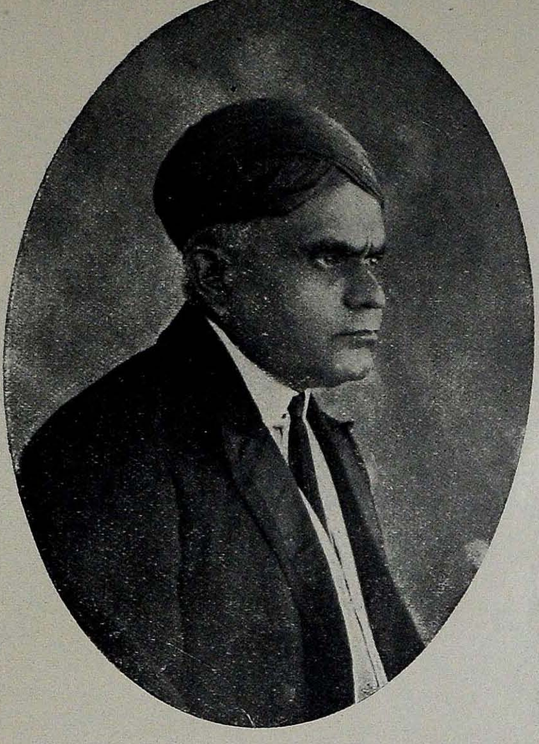
The Chief concluded by making a humorous allusion to His Excellency's love of Technical and Commercial education, saying how oriental research also helped in it.

Shrimant Babasaheb Pant Sachiv, Yuvaraj of Bhor, in seconding the proposal said :—

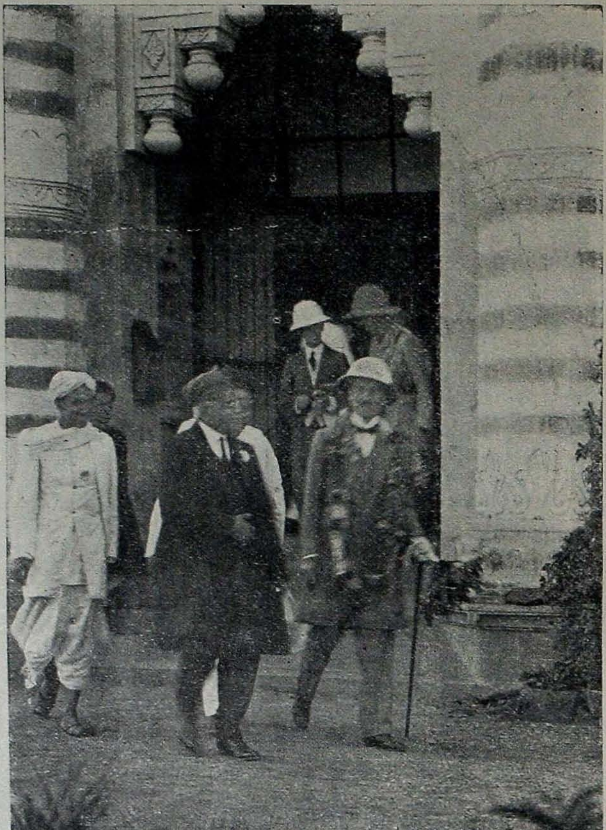
"LADIES AND GENTLEMEN,

I want to prominently point out the genuine interest and keen enthusiasm shown by His Excellency in ancient Oriental literature and other educational activities. My remarks would be still clearer when we remember, gentlemen, that in spite of the multifarious activities of greater importance engaging the attention of His Excellency and in spite of his being in Kashmir very lately, he could find time to specially come down here to open this grand and unique Conference—the first of its kind in the educational history of India. I hope you will carry the proposal with acclamations."

His Excellency then, in words that befitted the occasion, thanked the Chief of Aundh and the members of the



Barrister V. P. Vaidya, B. A. J. P., Chairman
of the Reception Committee.



His Excellency Sir George Lloyd leaving the
Exhibition Hall.

Working Committee in return, and was glad that the opening session of the First Oriental Conference had been so eminently successful.

After the distribuion of flowers and Pan Supari by 1 P. M., His Excellency, accompanied by the Chiefs of Aundh, Sangli, Miraj and the Chairman of the Reception Committee, proceeded to the Tata Hall of the Institute, where an exhibition of old and rare manuscripts, illuminated scrolls of the *Mahābhārata* and the *Q'ran*, old and valuable coins, paintings and other things of antiquarian interest, was beautifully arranged in show-cases made specially for the purpose. Prof. D. R. Bhandarkar and Dr. S. K. Belvalkar helped the Chairman of the Reception Committee in showing His Excellency and the guests round the Exhibition and explaining certain exhibits. His Excellency and the other distinguished visitors expressed their great pleasure at what they saw.

II.—SECOND SITTING ON THE SAME DAY.

2-30 P. M. to 5-30 P. M.

12. The Conference resumed its sitting in the afternoon. The attendance, including delegates, was about five hundred. Principal A. C. Woolner, one of the Vice-Presidents took the chair.

Dr. T. K. Laddu then proposed and Barrister V. P. Vaidya seconded that, as it had been decided to read some twenty papers only in the general sitting, and as the remaining bulk of papers (about 100) had to be read in different sectional meetings, the following gentlemen be elected chairmen for the subjects indicated against their names.

Dr. R. Zimmermann of the St. Xavier's College, Bombay : Veda.

Dr. J. J. Modi of Bombay : Avesta.

Prof. S. Kuppuswami Shastri of the Presidency College, Madras : Classical Literature and modern Vernaculars.

Prof. S. Khuda Bukhsh of the University of Calcutta : Persian and Arabic.

G. R. Kaye, Esq. of Simla : Technical Sciences.

Prof. D. R. Bhandarkar of the University of Calcutta : Archaeology.

Dr. J. J. Modi of Bombay : Ethnology and Folklore.

Dr. Ganganath Jha of the Sanskrit College, Benares : Philosophy.

Dr. Satis Chandra Vidyabhusana of the University o Calcutta : Pali and Buddhism.

Prof. S. Krishnaswami Aiyangar of the University of Madras : Ancient History.

Prof. V. K. Rajwade of Poona : Philology and Prakrits.

Mahāmahopādhyāya Laxmanshastri Dravid, of the Sanskrit College, Calcutta : Papers in Sanskrit written by learned Pandits.

The proposition was carried unanimously.

13. The Vice-President then requested the representatives of the different learned societies to read their reports and called upon Dr. J. J. Modi to read the *Report of the Bombay Branch of the Royal Asiatic Society*, which he did in extracts.

(1). The full text of the report is as follows :—

" The Bombay Branch of the Royal Asiatic Society was founded in November 1804. So, it completes this month 115 years of its existence. Sir James Mackintosh, who was the Record of Bombay, was the founder of the Society. He called a meeting of some well-known European citizens of Bombay at his residence at Parel on 26th November 1804. The Hon'ble Jonathan Duncan, the then Governor of Bombay, was one of those who were present. He knew Persian well. As a Parsee I specially mention his name, because his name has been somewhat associated with that of a Parsee Dastur of the time. The father of Dastur Moola Feroze had brought from Persia the Desatir to which attention of Persian scholars was drawn by Sir William Jones, "the Columbus of the new Old World of Sanskrit and Persian Literature." Mr. Duncan, who had come into contact with Moola Feroze in the matter of his Persian studies " considered himself as supremely fortunate in having at

length made the longed for discovery " of the Desatir in the hands of his friend, the Dastur. He requested the Dastur " to show it to no person whatever, and having undertaken a translation of it, continued to prosecute his work, at intervals, for several years, intending on his return to England to present it to His Majesty as the most valuable tribute which he could bring from the East.'' But alas ! before he could do that, he died in 1811 and lies buried in St. Thomas' Cathedral Bombay.

The gentlemen present at the above meeting formed themselves into a Society under the name of " The Library Society of Bombay.'' Sir James Mackintosh was appointed its first President, Mr. William Erskine, a known Orientalist of the time, was appointed its first Secretary and Mr. (afterwards Sir) Charles Forbes, whose name latterly became very popular among the people of the city as their friend, was appointed its first Treasurer. Among the members of the Committee we find one named as " Don Pedro de Alcantara, Bishop of Antiphile and apostolical Vicar in the dominions of the Great Mogul," which reminds us of the relations which existed between the Catholic Fathers and the Moghul Court from the times of King Akbar.

It was resolved at the meeting that monthly meetings of the Society may be held at 4 O'clock on the last Monday of each month. The present Government House at Malabar Hill was then, as said by Anquetil Du Perron in his book of the Zend Avesta, a rendezvous, where the elite of Bombay met for their tea after dinner, which then took the place of our present tiffin or lunch. The monthly meetings of the Society remind us of those early days, when, looking to the population, the times, circumstances, and the state of education, there was more of literary activity in Bombay than at present, when the large number of Gymkhanas and Clubs draw away people, and the papers, which are few and far between, are read before scanty audiences.

Calcutta was the first to found a literary society of this kind. Sir William Jones, who, as a young Oxonian, was wounded to the quick by the scornful tone adopted by Anquetil Du Perron towards Hyde and others in his book on the Zend

Avesta, had attacked both the French scholar and the Zend Avesta. Sir James Mackintosh in his first discourse on the foundation day, referred to the foundation of the Bengal Asiatic Society at the able hands of Sir William Jones and discussed at some length the object of the Society, viz. investigations into literary and scientific matters pertaining to the East generally, and to India in particular.

It was in 1827 that it was proposed that the Society may be united with the Royal Asiatic Society as its branch. The proposal was accepted, and since that year, the Society gave up its former name and assumed that of the "Bombay Branch of the Royal Asiatic Society." Sir John Malcolm, the then Governor of Bombay, and the then President of the Society, spoke at some length at the meeting called for the purpose of the union, on the subject of Asiatic learning. Though the Bombay Society was thus united, in the matter of its administration and funds, it was and is independent.

In the early years of the Society, its membership was confined only to Europeans and its doors were firmly closed, though often knocked at, against the natives of this country. The reason for this exclusion was that they were not sufficiently advanced in education to take part in such literary societies. But when the Hon'ble Mountstuart Elphinstone, during his governorship of Bombay, helped the cause of education and when education thus began to spread, the cause of exclusion began to disappear. Elphinstone was also President of the Society. In a letter dated 5th December 1827, written to Elphinstone by Sir John Malcolm, another Persian scholar, who succeeded him both in the gubernatorial Chair of Bombay and in the Presidential Chair of the Society, the writer expressed indirectly some hopes of some "happy association between them (the educated natives of the country) and their European fellow-subjects, which will essentially aid and facilitate the future labours and researches of the Literary Society of Bombay.

It was a Parsi, the late Mr. Manockjee Cursetjee, a pioneer in various paths of advancement in the City of Bombay, who first knocked at the doors of the Society to be admitted, and, though defeated, knocked again and again and

was at last admitted. When he was first proposed and supported in 1833 by Mr. R. C. Money, Secretary to the Bombay Government, and Colonel Vans Kenandy, the then President of the Society, his nomination was opposed by the Rev. Dr. Wilson "on the ground that it would give a preference over their countrymen of the highest literary attainments to those whose only literature was the acquaintance with the English language".* Mr. Manockjee Cursetjee was, in the election by ballot, rejected by 14 black balls. Then Mr. Manockjee got himself first admitted into the parent Society—the Royal Asiatic Society, and then sought admission here in the Branch Society. As the parent Society had admitted him, he had to be admitted here also and so the doors were opened to him on 29th January 1840. The doors of Free-Masonary, which also were closed here against the natives of the country, were similarly knocked at by Mr. Manockji Cursetji and they also were opened at last to him. In 1864, the Hon'ble Mr. Frere, the then President of the Society, thus referred to the subject of this election in his presidential address :—

" Those of you, who have been as long connected with the Society as I have been, will recollect the great opposition which was made in the year 1833 to the admission of a native as a member of the Society. It is a good rule of our Society, that no record is ever kept of those who have been proposed as members and black-balled, but it is now a matter of history, that notwithstanding the exertions made by some of the most popular and influential of our members, they signally failed in getting this native admitted into the Society as a member, and it was not until Manockjee Cursetjee had been elected a member of the Royal Asiatic Society, and his friends claimed as a right for him to be admitted a member of this Branch Society, that the door was opened.† All honour be to him for his characteristic perseverance and indomitable courage on this as on all occasions. After he was admitted, the Hon'ble Juggonath Sunkersett, Sir Jamsetjee Jeejeebhoy, and others soon followed ; and good reason we have not only to be proud of our

* Historical sketch of the Society by Mr. G. K. Jivarekar.

† In January 1840.

native members, but to be grateful to them for the splendid additions they have made to our Library and Museum. To whom are we so much indebted for presents of books and a large and costly collection of coins as to Cowasji Jehangir Readymoney, Esq., and the Hon'ble Juggonnath Sunkersett ? and have not Bal Gangadhar Shastree, Dr. Bhau Daji and Dhunjeebhai Framjee been large and useful contributors to our journal ? Gifts and contributions, such as these, may well make the Society proud and grateful to our native members."

Later on, the Hon'ble Mr. Frere, when an address was presented to him, said : "The Society now really is Asiatic, which it hardly was before, but which I trust it will ever continue to be."

In 1873, the Bombay Geographical Society, which was founded in 1831 as a branch of the Royal Geographical Society, was amalgamated with this Society and it ceased to exist.

The Transactions of the Society during its early years were published in three Volumes in 1819. These three Volumes were republished in 1877 under the editorship of the late Hon'ble Rao Saheb Vishvanath Narayan Mandlik. After its amalgamation with the Royal Asiatic Society in England, all the papers read before it were sent to England to be published in the Journal of the parent Society. In 1841, it was again resolved, that the Society may publish its transactions here in a Journal to be issued quarterly. But the Journal now is not issued quarterly. It is published irregularly as papers come in. By this time the Society has published in all 24 Volumes.

It is very gratifying to note that while at one time in the early years even after the admission of Indian members, the Journal had few papers—few and far between,—from the pen of Indian members, now they contain mostly papers from their pens."

(2) Dr. J. J. Modi, then as Secretary read extracts from the *Report of the Anthropological Society* which he represented. The full report runs as follows :—

The Anthropological Society of Bombay was founded at a meeting held in the rooms of the Natural History Society of Bombay, on 7th April 1886, under the Presidentship of the late Mr. Edward Tyrrel Leith, LL. M., who was i's founder. Of the 73 members, announced at the meeting as "Original Members of the Society" none are now living as its members.

We held regularly (except in May and December) our monthly meetings on the last Wednesdays of every month, when papers are read and discussed. These papers are then published in our Journal, of which we have in all published X volumes of 8 numbers each and 4 numbers of Vol.XI.

The Silver Jubilee Memorial Number of the Journal of the Society, published in 1911, contains an exhaustive index of the subjects treated in the papers read before the Society upto that time.

The society has an official Englishman as president, but the writers are nearly all Indians, well-educated men who ought to be able to get at the correct facts, which they certainly can present in good style. The Silver Jubilee Number contains special contributions. The history of the society shows good work done for twenty-five years. The index of the papers read during the period and of the anthropological scraps ranges over the whole field of anthropology, though from a perusal of the titles the merits of the papers cannot be gauged. The specimens in this number are varied and excellent, whether they deal with legal matters, ethnography, ancient engineering, superstitions, Hindu rites and marriage, or Totem theories. In such societies all classes of the community can meet freely, and interchange ideas to their mutual advantage.

As stated by the founder at the first meeting, the Society was " not intended to be merely a local Society but one that should embrace the whole of the Indian Empire." He further said that there was probably no country in the world which offered so interesting a field for anthropogical research.

The following were suggested by him as the principal subjects worth inquiring into by the Society.

I. Systematization of the knowledge at present existing with regard to the races of India.

II. Comparative Religion; India being the home of Vedism and Buddhism in the past, and of Hinduism, Jainism, Mazdaism and Islamism in the present, offered most valuable materials for inquiry by the student of Comparative Religion.

III. Comparative Law.

IV. The institutions connected with the genesis and development of man.

V. Anatomical relations.

As to the first subject, some of the papers of the Society have been written on the various tribes or classes of India. I had the pleasure of contributing seven papers on this subject.

As to the second main division suggested by the founder, we find, that he named the following subjects as worthy of inquiry among many others :—

1. The daily, annual and other ceremonies of the Brahmin Caste; 2. The Religion of the pre-Aryan races of India, at the bottom of whose list stood "the black-skinned jungle tribes of the hills, who were hardly higher in culture than the aborigines of Australia.......The mother-worship practised in every Hindu village, represented the primitive religion of India. Closely allied to it, was the secret Śākta Sect. Both systems were deserving of the closest investigation"; 3. Sorcery, witchcraft and necromancy among the lower castes of India; 4. Religious ecstacy or frenzy, under the influence of which a person was possessed by a deity, demon or departed spirit; 5. The constitution and practices of the religious orders, such as Gosavis and Bairagis; 6. The sacred shrines, idols and places of pilgrimage; 7. The primitive custom of human sacrifice.

As to the third main heading or division, viz., Comparative Law, the following were suggested as worth inquiring :—

1. Mother-law or the system of descent through the female line; 2. Caste rules; 3. Oaths; 4. Ordeals.

As to the fourth main head, viz., the institutions connected with the genesis and development of man, the President specially referred to the following :—

1. The rites of the Wāma-mārga in Sakti-worship; 2. The dedication of dancing girls to the service of the temple.

Coming to the last head, viz., Anatomical relations, we find the following suggested for further inquiry :—

1. Collection of statistics regarding the capacity of the human skull and other measurements of the human frame among the various castes and races of the Indian Empire; 2. The physiological and psychological characteristics of the races.

The President-founder had in his inaugural address wished that the motto of the Society should be "Surtout de Zele". The Society has kept up the same zele upto now, though not to the same extent as that which prevailed in the first few years of its existence. I repeat here what I said in my Presidential address as the President of the Society for 1914. "As far as the work of our liberal societies, such as the Bombay Branch of the Royal Asiatic Society, the Anthropological Society and others is concerned, there is a fall in the literary activity of Bombay."

What is the cause? Is it that the educated classes are so much over-worked as not to be able to attend one or two monthly meetings of these Societies? Perhaps that is so, to a small extent. But that does not seem to be the only cause. Perhaps it is the number of Gymkhanas and Clubs that have arisen of recent years among us, that is the cause of this fall in the literary activity of the learned Societies. If so, we may say to the seekers of pleasure, that our Society also offers a kind of pleasure. It is intellectual pleasure.'

The first office-bearers of our Society were the following :—

President, Mr. Tyrrel Leith; Vice-Presidents, the Hon'ble Mr. Justice Scott and the Hon'ble Rao Saheb Vishvanath Narayan Mandlik; Honorary Secretaries, Dr. D. MacDonald, Mr. Y. V. Athalye and Prof. O. S. Pedraza; Curator

of the Museum, Mr. H. M. Phipson; Librarian, Mr. (now Sir) Basil Scott.

The post of President was held from time to time by distinguished gentlemen, the Presidential addresses of many of whom as given in the Society's Journal, will give one an idea of the great scope of work before one interested in the anthropological subjects.

(3) Dr. J. J. Modi further read the *Report of the Jarathoshti Din ni Khol Karanari Mandali* thus :—

"The late Mr. Khurshedji Rustomji Cama in whose-honour the K. R. Cama oriental Institute has been lately founded in Bombay, was the founder of the Society. He had gone to England in 1855 for purposes of commerce. On his way back to Bombay in 1859, he had stayed for some time at Paris and Erlangen and studied Avesta and other cognate languages under Professors Mohl, Oppert and Spiegel He also studied there French and German. Two years after his return to Bombay, in 1861, he opened a private class at his residence in the Fort to teach young Parsee priests the Avesta and Pahlavi languages according to the Western Scientific method. After thus creating and cultivating a taste for the study of Iranian languages according to the systematic Western method, he saw the necessity of founding a Society, where scholars and students both of the old traditional school and the new scientific school, may meet, and discuss and make researches into, various subjects of Zoroastrian religion. So, in March 1864, he sent round a circular among the local Parsee Dasturs or the Head Priests, who knew Iranian languages, inviting them to meet on 30th March at the Moola Feroze Library, which is now located in the above-mentioned K. R. Cama Oriental Institute, to consider the question of founding such a Society. In that meeting, a Society was founded under the name "Jarthoshti Din ni Khol Karnari Mandali", i. e. the Society for making researches in Zoroastrian religion. It was resolved, that monthly meetings may be held on the 29th day of every Parsee month. It is not known why of all the days in the month, this particular day was chosen, but perhaps it was because the day bore the name of Marespand

(Mathra Spenta) i. e. the Holy Word, the Holy Mathra (मन्त्र) and so a very proper day for making inquiries in the matter of religious scriptures.

The annual subscription was fixed at Rs. 12. Now it is Rs. 3. The Dasturs or the Head Priests Dasturs Peshotan Byramji, Erachjee Sorabji and Jamaspji Minoncherji were the Presidents of the Society for different periods till 1898. Then Mr. K. R. Cama who was very properly called " a laique Dastur" by the late Prof. Darmesteter, was the President till the end of his life in 1909. He was succeeded by Shams-ul-Ulama Dastur Darabji for one year. Mr. M. P. Khareghat, I. C. S., (Retd.), now holds the Chair. Mr. Cama, the founder, was the fourth President and he came to the Chair about 34 years after its foundation. This may look rather strange. But the fact was that from the very begining he wished to associate the clergy, and especially the Dasturs, the leaders of the clergy in the work of the Society and so he always gave them precedence. Even when the President-Dasturs were absent, he did not take the chair, but proposed his pupil-priests to it, thus showing that from the very beginning he intended the Society to be a field of literary activity for the clergy.

The Society has at times asked for competitive Prize Essays. The first of the kind was in the very first year after its foundation. The late Dr. Martin Haug, Professor of Sanskrit at the Deccan College, who was also versed in Iranian languages, had, at the request of Mr. Cama, delivered a public lecture on " Zoroastrian Religions " on 8th October 1864, in a bungalow on the Gowalia Tank Road at Bombay. The admission to the lecture was by tickets of Rs. 5 each. The sum realized, about Rs. 1,100 was intended to be given as a purse to Dr. Haug. But the learned lecturer desired that it may be utilized as prize-money for some work on an Iranian subject. So Mr. Cama offered the sum to this Society for asking prize essays.

The Society added Rs. 100/- from its own fund and asked for two Competitive prize essays, one of Rs. 200/- for the text, translation and glossary of the Pahlavi Dand-nameh Ādarbād Marespand and another of Rs. 1,000/- for the

text, translation and glossary of the Pahlavi Dadistan-i-Dini. Both the prizes were won by the late Ervad Shariarji Dadabhai Bharucha, for some time a pupil of Sir Ramkrishna G. Bhandarkar and a quiet unassuming scholar of the first rank among the Parsees, who, besides the Iranian languages, knew Sanskrit as well, and who later on, was, at the request of the Trustees of the Parsee Punchayat, the Editor of the Collected Sankrit Writings of the Parsees. The second prize was won by him with a collaborator, the late Ervad Tehemurasp Dinshaw Anklesaria, another learned scholar, who also knew Sanskrit. Another Prize Essay asked by the Society was that of the Gujarati Translation of the Vendidad. The prize money Rs. 600/- subsequently increased to Rs. 1,000/- was kindly given by Mr. Cama himself and the late Ervad Kavasji Edulji Kanga was the winner. The Gujarati Translations of all the parts of the Avesta by this learned scholar are deservingly held upto now to be standard translations by the Parsee Community. The translation into Gujarati with proper comments of Sir Oliver Lodge's *Substance of Faith* was the next prize Essay asked by the Society at the instance of Mr. Cama. I had the pleasure of suggesting the subject to Mr. Cama. He agreed with me that in the midst of all differences of views among the various sections of all the different religions, Sir Oliver Lodge's book supplied a sure scientific basis of Truth and Belief in the Supreme Power.

The Society has published upto now the several Reports of its Proceeding intermittantly.

Papers have been read before the Society by some distinguished non-Parsees. Among these, there was a paper by Professor Rajaram Ramkrishna Bhagvat of St. Xavier's College. The paper was on the subject of "The Meher Yasht" and it was read and discussed at a number of meetings.

The Society had no location of its own upto now. It met at different places. But now it is located in the K. R. Cama Oriental Institute. I had the pleasure and honour of starting and collecting among the Parsees a Memorial fund in honour of Mr. Cama on his death. I entrusted the amount, which in

all amounted to about Rs. 12,000/- to the Institute, on condition that the Moola Feroze Library and the Society, in both of which Mr. Cama took a great interest, may be given a home in its premises.

The meetings of the Society have been occasionally attended by European savants coming to this country. Professors Darmesteter and Jackson were among these."

. . . . . .

At this stage Prof. V. K. Rajwade, representing the Bhandarkar Oriental Research Institute proposed that as the time at the disposal of the Conference was short, the reports should be presented to the conference by the representatives of the various Institutions and should be taken as read. The suggestion was unanimously accepted. The following Reports were presented to the Conference and taken as read. These are here given in full.

(4) *Rerort of the K. R. Cama Oriental Institute*: by Mr. R P Masani.

" It gives me great pleasure and pride to present to the Conference a brief account of the origin and activities of the K. R. Cama Oriental Institute. It would have come more fittingly and much more effectively from the gifted pen of so eminent a scholar and educationist as the Rev. Dr. D. D. Mackichan, M.A., D. D., LL.D., President of the Executive Committee of the Institute, but as he considers that it should come from me as one of the active promoters of the Institute, I cheerfully respond to the call, although I feel I can assert no claims to oriental scholarship myself.

On the 20th August 1909, a simple, earnest, saintly scholar breathed his last in Bombay. Remarkable as was his personality, long, phenomenally long, arduous, many-sided and high-minded as were his activities and services in the spheres of social elevation and civic progress, the late Mr. Khurshedji Rustomji Cama will be best remembered amongst the present and future generations of Bombay as one of the most enlightened followers of the Zoroastrian faith, as an ardent student and cultured exponent of the doctrines and root principles of the time-hallowed scriptures of the Parsis, and as the father and founder of a new and

critical method of study of the teachings of the great prophet of Persia. For the recent awakening of interest in Avesta learning amongst the members of their community, the Parsis are indebted to Western scholars. But the labours of these scholars in the early part of the last century would have borne no fruit, had there not been one among the Parsi community to enter into the spirit of those scholars and to appreciate the lines on which the Zoroastrian scripture should be studied and construed. To the late Mr. Cama belongs the credit of introducing among his co-religionists, at a time of religious decadence, the study of comparative religion and comparative philology. Though not a millionaire, he opened classes for teaching Avesta and Pahlavi languages to the Parsi priests, paid scholarships for attending the classes and took a delight in dedicating his leisure hours to the instruction and enlightenment of the priests. Thus was he the Guru of Gurus of the ancient faith.

It was, therefore, natural that there was a consensus of opinion, when the eminent scholar and philanthropist passed away, that the most fitting monument to his memory should be an Oriental Institute for the promotion of Oriental studies. and research. The proposal emanated from Dr. Mackichan. It was approved of by the committee appointed on the 8th December 1909 at a large influential meeting of the citizens of Bombay, to collect subscriptions for a suitable memorial to commemorate the eminent services of Mr. Cama and to promote the many activities to which he had devoted himself with exemplary zeal and self-sacrifice.

Subscriptions were received to the extent of Rs. 1,10,000. This included a munificent donation of Rs. 1,00,000 from a Hindu friend and admirer of Mr. Cama, the late Mr. Damodar Gordhandas Sukhadwalla. Unique as was Mr. Cama in his catholic sympathies, broad-minded tolerance and devotion to the cause of intellectual enlightenment and social emancipation, no less remarkable was Mr. Sukhadwala for the catholicity of his views and his anonymous donations for the furtherance of projects for the social and intellectual advancement of the people.

A separate fund amounting to Rs. 12,100 raised exclusively by the Parsis for perpetuating the memory of Mr.

Cama, was also made over to and amalgamated with the Institute fund. A Trust Deed was then drawn up defining the objects of the Institute and the considerations under which the Institute was to be maintained and was approved at a meeting of subscribers held on the 31st October 1916. At the same meeting the undermentioned gentlemen were made Trustees of the Institute :—

Rev. Dr. D. Mackichan, M. A., D. D. LL. D.
Dr. Sir Stanley Reid, LL. D.
Shams-ul-Ulama Dr. Jivanji Jamshedji Modi, B. A., Ph. D., C. I. E.
Mr. Sorabji Edulji Warden.
Mr. Mahomedbhoy Currimbhoy.
Mr. Kazi Kabiruddin, Bar-at-Law.
Mr. Rustom K. R. Cama B. A., LL. B.
Mr. Krishnalal Mohanlal Jhaveri, M. A., LL. B.
Mr. Rustom Pestonji Masani, M. A.

The inauguration ceremony of the Institute was performed on the 18th December 1916 by His Excellency Lord Willingdon amidst a large and influential gathering of the citizens of Bombay.

The object of the Institute is to promote and advance Oriental studies, to offer facilities to the existing societies and institutions engaged in such work and to found scholarships for encouraging and advancing Oriental studies. A Fellowship has been already endowed for the preparation of scholarly treatises on subjects connected with Iranian civilization and literature for collecting and editing manuscripts in Iranian and Arabic languages, for translating such manuscripts or for travelling and collecting materials such as copies of old documents, colophons of old manuscripts etc. for the history of the Parsis in India. It is proposed to endow other fellowships for research in Sanskrit works or Muhammadan or Post-Islamic Persian or Arabic literature. Thus the work of the Institute will not be confined to the promotion of Iranian studies only, but will also embrace the advancement of studies and research in Sanskrit, Persian and Arabic lore and the Institute, it is hoped, will be a centre of many-sided activities in Oriental scholarship, worthy of the

distinguished scholar, whose valued services to the cause of oriental learning it commemorates and worthy also of the second City in the Empire in which it is located.

The Executors of the late Mr. Cama's will were good enough to present his private library to the Institute. It is intended to be the nucleus of a comprehensive collection of works bearing on Oriental literature. With it is also located in the Institute the famous Moolla Feroze Library, which is now happily removed from the obscurity of a corner in the Dadyseth Fire Temple at Thakurdwar. The Moolla Feroze Madressa now holds its classes in the same premises and facilities have been given to the Zarthoshti Dinni Khol Karnari Mandali and the Parsi Writers Association to hold their meetings in the Institute.

It is pleasing to record the encouragement and support given to the Institute by the Government of Bombay. From the very commencement of the project Lord Sydenham, the then Governor of Bombay, took a keen personal interest in the work of the Committee. While the scheme was matured, Lord Willingdon's Government were pleased to sanction a grant of Rs. 30,000 to the Institute. This amount has been set aside by the Committee as a special endowment for the foundation of a Fellowship or Fellowships and the interest thereof will be devoted in the first instance, to the work o compilation of a full and descriptive catalogue of all manuf scripts and books in the Institute. Mr. Bomanji Nasarwanji Dhabhar, M. A., has been appointed a Fellow for the work of preparing the catalogue on the lines of those prepared for the Bodleian Library at Oxford, the British Museum and the Moolla Feroze Library. It is expected that it will be completed before the end of this year. Other small funds have been endowed, largely due to the generosity of the heirs and relations of the late Mr. Cama, for prizes to be awarded to students for essays on subjects relating to Avesta and Pahlavi literature. One of these is the " Surrosh K. R. Cama Memorial Prize," for which any person, who writes in English the best essay on the life or teachings of Zoroaster or some such cognate subject, will be eligible.

The Institute is still in its infancy. It has taken a long time to settle the preliminaries and to overcome the initial

difficulties. Now is the time for undertaking research work. Heretofore, Bombay could not boast of a worthy centre for Oriental research. Now we have got one. Similarly, Poona City has been fortunate enough to get an Institue endowed in honour of another distinguished Orientalist. Let us make these worthy centres in all respects so complete and so fully equipped that scholars from the East and scholars from the West, who are in search of materials for their researches, may find therein what they want. Let us also encourage young men to avail themselves fully of the priceless treasures within their reach.

The graduates of our universities represent the pick of Indian literary culture. It is their sacred trust and privilege to guard and to enrich the treasures of Oriental literature. A taste for such pursuits cultivated, during their college days, would be an asset to them and to the community. How to create and stimulate it, is a problem to which our research institutes will have to devote special attention. Years ago the Dakshina Fellowships were instituted for the express purpose of encouraging the ablest young men of the Presidency, to apply and concentrate their energies for the best years of life on the development of vernacular literature. "What we want", observed the then Director of Public Instruction, Mr. Howard, "is a race of native authors who, being full of sound learning and European science, would, out of the fulness of their minds, write books of authority fashioned in native moulds of thought". Accordingly, under the scheme as orginally sanctioned, each Fellow was to deliver every year a course of lectures in the college and publish a treatise in the vernacular. He was, so to say, told that he had no right to enjoy the feast of knowledge in silence and without company but that it was his duty to invite his uneducated or less educated brethren to the banquet. Within a short time, however, the Fellowships dwindled into mere college-tutorships to the detriment of the Fellows as well as the pupils. About 15 years ago, I brought this matter to the notice of the then Director of Public Instruction, Mr. Giles, and pointed out to him how much useful work could have been done for the cultivation of vernacular literature, had not the original

object of the Fellowships been lost sight of. He, however, found it impossible to deprive the college professors of the assistance that they used to receive from the Dakshina Fellows in their work and suggested that I should move the University in the matter. The University has since taken some measures for the recognition of the vernaculars, but that is no justification for the appropriation of the Dakshina Fellowships for a purpose, for which they were never intended. I would, therefore, appeal to the Cama and Bhandarkar Institutes to make a joint appeal to the Educational Department for earmarking at least a few Fellowships for the original object. I have no doubt the present Director of Public Instruction, the Hon'ble Mr. J. G. Covernton, C. I. E., will lend a very sympathetic ear to the representations of such influential organizations. The two Institutes may also press upon the attention of the University the desirability of offering incentives to young graduates for oriental studies and research."

(5) *Report af the Bhandarkar Oriental Research Institute*:

"I HISTORY.—The idea of an Oriental Institute, offering facilities to research workers and at the same time commemorating the work and name of Sir R. G. Bhandarkar, originated towards the middle of 1915. The scheme was received enthusiastically, and with public support, Government sympathy, and chiefly the noble aid rendered by Sir Ratan and Sir Dorab Tata, the scheme soon materialized, and the Institute was formally inaugurated by H. E. Lord Willingdon, the then Governor of Bombay, on the 6th of July 1917. One part of the main buildings of the Institute—the J. N. Tata Research Hall—was opened by Shrimant Balasaheb Pant Pratinidhi, Chief of Aundh, on 6th July 1918. The Institute began its literary work in October 1918. The Government of Bombay tranferred to the Institute the Manuscripts Library formerly at the Deccan College, together with a maintenance grant of Rs, 3000, and also handed over to the Institute, provisionally for five years, the management of the Bombay Sanskrit and Prakrit Series, together with a grant of Rs. 12,000 for that purpose.

II OBJECTS.—(*a*) To place within the easy reach of advanced research students a first class and up-to-date Ori-

ental Library and to afford them all other ready-made helps in the way of select topical bibliographies, digests of magazine articles, card-indexes and similar critical material.

(*b*) To train qualified students in the scientific methods of research along Western lines by opening post-graduate classes, founding lecturerships and in time, preparing students for higher degrees in Oriental research.

(*c*) To place the indigenous learning of Shastris on a broader and sounder basis.

(*d*) To publish, with the co-operation of distinguished scholars, critical editions of texts, original and independent works, bearing upon Indian Antiquities and Literature, as also a Journal, Proceedings, Catalogues, Reports and Occasional Studies.

(*e*) To act as a bureau for literary advice and information on points connected with Oriental studies.

(*f*) And generally to do everything for the advancement of Oriental learning and studies.

III WORK.—(*a*) The Mss. Department, in addition to lending out Mss. under the usual conditions, has on hand the completion of the card-catalogue of all the Mss. of the Government Library, as a preliminary to a subject and author catalogue of the same. In the near future would be published a catalogue of about 2,500 Mss. added to the Library during the last twenty years. It has also undertaken a descriptive catalogue of all the Jain Mss. in the library which has a larger number of these Mss. than any other Library. This catalogue is being compiled under the immediate direction of the distinguished and learned Jain Muni Jinavijayji of Poona.

(*b*) The Publication Department, besides conducting the work of the Bombay Sanskrit and Prakrit Series, has undertaken a new Series which includes texts, and independent and original works. For this, co-operation of scholars from everywhere is solicited. It is also hoped to publish, in the very near future, an authoritative edition of the works of Sir R. G. Bhandarkar, prepared under his supervision. In recognition of the handsome help promised by the Jain

Community, the Institute is devoting special attention to the publication of Jain Literature.

(*c*) The Research Department invites distinguished Oriental scholars to read papers at the Institute. These paperss are published in the Journal of the Institute. A class in German, for the benefit of advanced scholars desirous of learning this language, was regularly held by Dr. K. K. Joshi of the Fergusson College at the Institute. A similar arrangement has been made for a French class. At the request of a number of scholars, it is proposed to open classes in Pali, Prakrit, Archaeology and the old Śāstras, under proper guidance. In order to initiate the Shastris into the critical method of study, lectures will be delivered for their benefit from time to time in Marathi, summarising the results of the latest research. Provision is being made for teaching the M. A. courses of the University of Bombay in Sanskrit and allied subjects at the Institute.

(*d*) The Library Department will soon publish a catalogue of the magnificent Library of Sir R. G. Bhandarkar, of which he has made a free gift to the Institute, and a part of which is already transferred to the Institute. The work of preparing digests of Magazine articles and bibliographies is proceeding apace. The Institute seeks co-operation from publishers and authors for being kept in touch with current Oriental Literature.

(*e*) The Mahābhārata Publication Department owes its existence to the liberality of Shrimant Balasaheb Pant Pratinidhi, B. A., Chief of Aundh. He has undertaken to pay annually Rs. 6000 for preparing a critical and authoritative text of the great Indian Epic with illustrations. Public support is still required to meet the other half of the expenses. A prospectus preliminary to this edition was published on the 1st of April 1919, and the work of collating and comparing Mss. and preparing the press copy begun on that day. The preparation of the press-copy is calculated to require about eight years. The Prospectus (pp. 44) gives a summary of all important writings bearing on epic studies, indicates in full the nature and the method of the new edition now in preparation and has a sample illustration, drawn in three

colours by Shrimant Balasaheb Pant Pratinidhi and his artists. Co-operation and suggestions are invited from scholars in the investigation of Mss. and the preparation of the text. A responsible editiorial committee has been appointed to supervise the collation work from time to time. The staff at present consists of the Secretary and Editor, one Graduate and three Shastris. The work is going on necessarily at a slow pace. To quicken it, more men will have to be engaged, which means more money will be required. The different Governments and states are being approached for this purpose.

(*f*) The Journal of the Institute was started in July 1919 under a responsible committee. It is expected that the Journal will, in the first instance, be issued twice a year ; in July and in December. The first number also contains the reports of the Executive Board and the Council, statement of accounts, list of publications presented to or bought by the Institute, list of members and other useful information. The articles in the first number are of varied interest and will speak for themselves.

(*g*) The information Bureau supplies gratis information on any literary or historical point to all enquirers.

IV MANAGEMENT.—H. E. Lord Willingdon, now the Governor of Madras, is the President, and the Chief of Ichalkaranji, Sir Dorab Tata and His Holiness the Shankaracharya of Karvir Math are the Vice-Presidents of the Institute.

The General Body of the Institute consists of all contributors to the Institute under the rules. The contributors have a right of electing members to the Council and being themselves so elected. The General Body meets once a year to adopt the annual report of the work of the Institute.

The Regulating Council consists of 30 members, 25 elected triennially by the General Body and 5 nominated by the Government of Bomay. The present Council has members on it from different parts of India. The council meets ordinarily twice a year, passes budgets, controls finances, exercises general supervision and elects an Executive Board.

The Executive Board, which carries on the work of the Institute, consists of nine members, two of whom are elected

from among the five Government nominees on the Regulating Council. For facility of work, the Board has appointed committees to carry on the different activities of the Institute as indicated above.

The present Executive Board consists of:—

1 Prof V. K. Rajwade, Chairman; 2 Dr. S. K. Belvalkar; 3 Prof. N. D. Minocher Homji; 4 K. G. Joshi Esq.; 5 Prof. R. D. Ranade; 6 Prof R. D Karmarkar; 7 N. B. Utgikar, Esq. Curator; 8 Dr. N. G. Sardesai, Treasurer; 9 Dr. P. D. Gune, Secretary.

V PRESENT NEEDS.—Though the Institute is well started on its career, much remains to be done for establishing it financially on a sound basis. All the money it has received upto now, has come ear-marked for specific purposes. The most urgent need is of the addition of the two projected wings to the J. N. Tata Research Hall. In fact no extension of the Libraries and the Reading Room can be contemplated unless the Institute has more room at its command. Shet Khetsey Khiasey of Bombay has promised to pay Rs. 25000 towards the cost of one hall and the Institute has recently approached Government for a contribution of Rs. 45000 for another Hall. The difference of 20000 in the cost of the first hall will have to be made up by subscriptions. New and permanent sources of income are required for building up a permanent fund. The Library will have to be maintained at a high level, and an Oriental Reading Room containing journals etc., is a prime necessity.

VI MEMBERSHIP.—There are four ways of joining the Institute; as a patron paying Rs. 1000, as a vice-patron paying Rs. 500, as a benefactor paying Rs. 250, as a lifemember paying Rs. 100 and as an annual member paying Rs. 10 annually. Members are entitled to a free copy of the Journal of the Institute and to all the privileges of the libraries. They are also entitled to a participation in the management as indicated above."

(6) *Report of the Karnatak Itihāsa Maṇḍala* :—

(1) *Introductory*

"The Kanarese country is studded with monuments of archaeological interest, such as temples, stone slabs,

copper plates etc. The Kanarese literature abounds in incidents relating to various dynasties, such as the Cālukyas, the Rāṣṭrakūtas, the Kalacooryas, the Yadava Princes of Dorasamudra and Devagiri and the Bijayanagar Rayas.

Mysore, the southern part of the Kanarese country, has sucessfully collected and printed the available inscriptions and other material; while the other part of the country is yet unexplored, and consequently the history of the great mediaeval dynasties remains closed to the world. Hence the necessity of an indigenous association like the Karnatak Itihāsa Maṇḍala.

(2) *The objects.*

The society is formed mainly with the object of collecting historical facts out of the vast material lying scattered in the country and to place the same before the world in general and the Kanarese people in particular. The society was founded in Dharwar on 29-9-1914 with 7 members to start with. Its present strength is 112.

(3) *Constitution.*

The society is managed by 5 members of the Managing Committee headed by a President. The members themselves have got a power of filling up the vacancies created in their rank. No system of annual election is in vogue. The membership is open to any one who desires to study the history and work in the line.

(4) *Difficulties and assets.*

1. The society has got all the disadvantages of being placed in a locality far removed from the Presidency towns.

2. It feels greatly the want of a good library consisting of books of reference upto date, principally on history, archaeology and architecture.

3. It is not so much in touch with the archaeological departments.

4. It has to work amidst the ignorance and the consequent apathy of the general public.

5. Want of funds is the greatest impediment that hampers the work of the society on all sides.

6. The society has got no building of its own; its few book-shelves are kept in the Karnatak Vidyā Vardhaka Saṅgha, and its Hall is occasionally used for its meetings.

7. The present library of the society, called "The Prayag Library", consists of several good books worth nearly Rs. 500. Besides the books, the society possesses taḍavalis, copper images, some coins, some deciphered copies of copper-plates, a number of imprints of stone-slabs, manuscripts and a number of documents and title-deeds.

8. The societys library is supplied, free of cost, with the reports of the Archaeological Departments of the Governments of Mysore, Bombay, Madras and the United Provinces.

9. The Mysore Archaeological Department has been helping the society to decipher the society's inscriptions and manuscripts whenever necessary.

10. The society has got some advantages also. It is placed in the midst of the materials that supply historical information. It is an indigenous one. Besides, it has the advantage of its members knowing Kanarese, in which language alone almost the whole of the available information is shrouded.

(5) *Work accomplished*

Various articles are published by the society through Kanarese, Marathi, Bengali and English magazines and papers such as the *Vāgbhūṣaṇa* (Kan), *Śabdacandrikā* (Kan), *Karṇāṭaka Sāhityapatrikā.* (Kan), *Citramaya Jagat* (Mar), *Bhāratī* (Ben), *Hindusthan Review* (Eng) and *Karnataka* (Eng). A pamphlet about Karnatak history is written in English. A special history in Kanarese is printed (its first Edition of 1917 is exhausted; the 2nd will be out soon). The society has also supplied information to the Bhārata Itihāsa Saṁśodhaka Maṇḍala, Poona, about the Kittur Desai's family and local traditions about the Desaini of Bellodi, who repulsed Shivaji's attack on her principality. An article has been published about Shahaji's tomb in the Shimoga district. To create an awakening among the Kanarese people, a Kīrtana about Śrī Vidyāraṇya (the famous founder of

the Bijayanagar Empire) and his life has been published and it was performed in various places.

In May 1918, a small exhibition of historical curiosities was held by the society in the Dharwar Training College for men, along with the 4th Karnatak Sahitya Sammelana. Magic lantern slides about the places of historical interest in Karnatak were shown by the society in the same Sammelana.

Places of Karnatak history such as Hampi, Halebidu, Belur, Shravana Belugal, Harihara, Badami, Patadakal, Aihole, Lakkundi, Annigeri, Laxmeshwar, Itagi, Chowdadanapur, Verul, Daulatabad, Shrirangapatam, Mysore and Bijapur were visited by members singly or in groups. Lectures about the epochs in Karnatak history were given in Poona Colleges and in Belgaum, Dharwar, Hubli, and Kīrtans of Śrī Vidyāraṇya were performed in Dharwar, Hubli, Gadag, Davangeri, Belgaum and Hungund."

(7) *Report of the Āndhra Pariśodhaka Mahāmaṇḍali of Pithapuram*, Godavari district :—

"This institution was started in 1917 by Mr. Ch. Dharma Rao (Bar-at-law) and Mr. Kavyanidhi Ch. Satcha Rao, Zemindars of Yernagudem.

The objects of the Mahāmaṇḍali are (1) collecting Mss., inscriptions and coins, (2) Facilitating the work of Research particularly in Telugu, (3) Popularising history and encouraging historical productions etc.

The institution has a neat little building of its own in which the Library is now situated. In spite of a copious collection of Mss., both by the Government of Madras and the Telugu Academy, our Mahāmaṇḍali could make a very satisfactory collection in these two years.

The Library was opened by the Hon. Rajah of Pithapuram, C. B. E. & F. M. V., when several Telugu scholars of great eminence were present, notably, the late Rao Bahadur K. Viresalingam Pantulu and Mr. J. Ramiah Pantulu, a great epigraphist.

We could hitherto collect about 2500 Mss. in Sanskrit, Telugu, Canarese and Tamil languages, of which several were hitherto unheard of. We very recently began collection of coins and inscriptions, some of which are exhibited now here, with a photograph of our Library and its buildings.

Some inscriptions were deciphered and texts were published in our vernacular Magazines. As we are new to deciphering of coins, we would like to place them before scholars for examination. We propose sending one of our Pandits to the Bhandarkar Oriental Research Institute, for training in the near future.

The following old books were published by us (1) *Jāhnavī Māhātmyaṁ* (2) *Sīmantinī Kalyāṇaṁ* (3) *Nītihāra Muktāvali*, (4) *Puṣpabāṇavilāsa* (5) *Nārāyṇa Śataka*, (6) *Candradūta* (7) *Vijaya-nandana Vilāsa*, (8) *Vālmīki-caritra*. *Vālmīki-caritra* was written by Raghunātha Bhūpāla, a Mahratta king of Tanjore. These books were unknown upto now even to the Āndhras and they throw additional light on the history of Telugu Literature, particulars of which need not be mentioned here.

A printing press was recently started to facilitate the work of the Mahāmaṇḍalī. The hitherto unpublished works, *Śataka Kavi Caritra* and *History of Telugu Literature* will soon be given to the public.

Detailed reports of the work and descriptive catalogues of Mss. and inscriptions, will be issued shortly after a good collection is made and we mean to publish the Sanskrit part of our catalogue in English for the use of Orientalists.

In this connection mention has to be made of a Telugu Ms. which was recently procured. It was dedicated to a grandson of Chatrapati Shivaji's brother, the Rajah of Tanjore; and in the Krityadi of which, a full genealogy and achievements of Shivaji and his successors are given, which may be of interest to historians of Maharashtra. One Chidambarakavi, a Maharatta by birth, about 300 years ago, wrote a book in Telugu called *Aṅgadarāyabhavam* in the preface of which he says that, though his mother-tongue was Marathi, he was tempted to write in Telugu on account of its

sweet and melodious sound. Thus we find several Mahratta princes as patrons of Telugu letters."*

14. The Conference then proceeded to the reading of papers and the Vice-President called upon Shrimant Balasaheb Pant Pratinidhi, Chief of Aundh, to read his paper on *the Drapery in the Mahābhārata.* The full text of the paper will appear in the second volume of the *Proceedings of the First Oriental Conference*, Poona. The President suggested that, as it was not possible to discuss the question during the session, if any body had anything to say on that point, he should communicate with the Mahābhārata Editorial Committee of the Bhandarkar Institute.

As Shams-ul-Ulama Saiyid Muhammad Amin of Jubbulpore and Maung Schwe Zan Aung Esq. of Rangoon were not present to read their papers on *A short note on the Arabic Language* and *The Buddhistic Philosophy of Change* respectively, the Vice-President called upon Prof. D. R. Bhandarkar to read his paper on *The Origin of the Indian Alphabet*, which he did in extracts. He was followed by Prof. M. Hiriyanna of Mysore, who read out important points from his paper on *Indian Æsthetics.* Then came Dr. Gauranganath Banerjee of the Calcutta University, with his *India as known to the Ancient World* which he read almost in extenso. Mr. S. K. Hodiwala of Bombay followed with his *Varuṇa, the Prototype of Ahuramazda* of which he read the summary. After him Dr. Ganganath Jha read his paper on *Theism of Gautama, the Founder of Nyāya.* Lastly Prof. S. Krishnaswamy Aiyangar of the Madras University made a brief speech and indicated the salient features of his paper on *Vaiṣṇavism in Southern India before Rāmānuja.*

Owing to the want of time, there could not be any discussion on these papers, all of which are being printed in the second volume of the Proceedings. The session closed at 5–30 P. M.

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*A report was also received from the Maharaja's Sanskrit College of Indore. But it is not our function to print reports of scholastic and collegiate institutions.

III. THIRD SITTING, THURSDAY, THE 6TH NOVEMBER 1919.

8-30 A. M. to 11 A. M.

15. The whole of this day was reserved for reading papers. The sectional meetings in different subjects commenced at 8-30 a. m. Several tents were erected near the pandal, with seating accommodation for members, and the pandal itself was divided into four sections by means of screens. The following sections could therefore conduct their meetings simultaneously.

(1) The Vedic Section : Chairman, Dr. R. Zimmermann. The attendance was about sixty, as delegates attended one section or another, of the many that were going on at the same time, according to their choice. The following papers were read and discussion followed at the close of each.

The Nighaṇṭu is not the work of the author of the Nirukta: Prof. R. D. Karmarkar of Poona.

A Study of the Idea of Rudra: Mr. S. D. Satvalekar of Aundh.

Gotra and Pravara: Rao B. C. V. Vaidya of Kalyan.

Reference to the Mahābhārata in the Āśvalāyana Gṛhyasūtra: Mr. N. B. Utgikar of Poona.

The Nirukta and Nighaṇṭu; their mutual Relations: Prof. Siddheshvara Varma Shastri of Shrinagar.

Ārya and Dasyu, a Chapter in social History: Mr. S. V. Viśvanath of Trichinopoly.

Dr. Zimmermann summed up the discussion and complimented scholars on the high level of scholarship and the critical acumen displayed in the papers generally. The sitting closed at about 10 A. M.

(2) The Avesta Section met after the Vedic section had finished. Dr. J. J. Modi was in the chair. The following papers were read and discussion followed.

Arekhsha, the Archer and his Arrow: Mr. B. T. Anklesaria of Bombay.

Aitareya: Dr. I. J. Taraporewala of Calcutta.

Avestan Archangels and Sanskrit Deities: Mr. A. K. Vesavevala of Bombay.

Sāmbākhyāna and early Zoroastrian Migration into India : Mr. K. N. Sitaram of Madras.

Modern Science in Ancient Iran : Mr. M. B. Pithawala of Poona.

The chairman summed up the discussion and was generally satisfied with the output. The meeting closed at about 11-15 a. m.

(3) The Classical Literature and Modern Vernaculars Section : Chairman, Prof. S. Kuppuswami Shastri. The following papers were read and discussion followed.

Śakuntalā, an Allegory : Mr. N. S. Adhikari of Gandevi.

The Relation of Śūdraka's Mṛcchakaṭika to the Cārudatta of Bhāsa : Dr S. K. Belvalkar of Poona.

Psychological Study of Kālidāsa's Upamās : Mr. P. K. Gode of Poona.

Kālidāsa and Music : Sardar G. N. Mujumdar of Poona.

Kāuṭilya and Kālidāsa : Mr. H. A. Shah of Bombay.

The History of Guṇas in Alaṅkāra : Prof. V. V. Sovani of Meerut.

Funeral Place of Kālidāsa : Dr. Satis Chandra Vidyabhusana of Calcutta.

The Text of Śakuntalā : Prof. B. K. Thakore of Poona.

After summing up the discussion, the chairman proceeded to the Modern Vernaculars Section, where the following papers were read.

The Dravidian Tense-suffixes : Mr. R. Swaminath Aiyar of Vemur.

Old Telugu Literature : Mr. K. Sitaramaiya of Vemur.

Telugu Language and Literature : Mr. G. Somanna of Madras.

(4). Ethnology and Folk-lore Section : Chairman, Dr. J. J. Modi. The following papers were read and discussion took place on some of them. The audience numbered about fifty.

The Rationale of the Hindu Śrāddha : Mr. A. Govindcaryaswamin of Mygore.

A Note on the Dissolution of Castes and the Formation of new ones : Dr. S. V. Ketkar of Nagpur.

A brief History of the Survey of the Ethnography of Bombay : Dr. J. J. Modi of Bombay.

A Plea for the Pre-historic Survey of India : Mr. Hayavadanarao of Madras.

(5). The Persian and Arabic Section was presided over by Prof. S. Khuda Bukhsh of Calcutta. About forty members were present. The following papers were read.

Persian and Arabic Words in Marathi: Prof. M. T. Patwardhan of Poona.

The un-known Ya in Persian: Prof. A. K. Shaikh of Bombay.

Arabic Star-names in Persian Literature: Mr. Saiyid M. Ahmed of Hyderabad.

Ukhāharaṇa in Shahnamah or the Persian Version of the Story of Ukhā: P. B. Desai of Bombay. (The paper was read by Mr. M. T. Patwardhan in the absence of the writer).

A Short Note on the Arabic Language: A. Saiyid M. Amin. (The paper was read by Saiyid Mukhtar Ahmed).

(6). The Technical Sciences Section had for its Chairman Mr. G. R. Kaye of Simla. The following papers in different Technical Sciences were read with interesting discussion. The audience was about forty.

Authorship of Rasārṇavasudhākara : Dr. P. R. Bhandarkar of Indore.

A Note on the Early History of Music: Mr. Clements of Belgaum. (The paper was read by Rao Bahadur K. B. Deval of Sangli.)

Classification of Melodies: Prof. V. G. Paranjpe of Poona.

A short Note on the Use of Metres by Sanskrit Poets : Mr. A. S. Bhandarkar of Poona.

A Note on the Ancient System of Medicine : Mr. M. Amin of Hyderabad.

Rasavidyā or Alchemy in ancient India : Mr. R. V. Patwardhan of Poona.

Hindu Astronomy : Prof. G. S. Apte of Gwalior.

On the use of the Astronomical Phenomena in fixing the Chronological Periods in Indian Hislory : Mr. V. B. Ketkar of Poona.

An Eye-table of Brahmasiddhānta : Divan B. L. P. Swamikannu Pillai, of Nellore.

On the Origin of the Week : Mr. R. Shamashastri of Mysore.

Town-Planning in Ancient India : Mr. Bhababibhuti Vidyabhushana.

(7). The Archaeological Section met under the chairmanship of Prof. D. R. Bhandarkar. About one hundred delegates attended ; the following papers were read with some discussion.

Sanskrit Manuscripts; their Search and Preservation : Mr. R. Anantakrishnashastri of Baroda.

Introduction to the Study of Ancient Indian Architecture : Mr. M. A. Ananthalwar.

The early Kalacuris and the Alphabets of their Copper-plate-grants : Mr. Y. R. Gupte of Poona.

Indo-Aryan Style of Architecture: Y. R. Gupte of Poona.

The Caverns and the Brahmi Inscriptions of Southern India: Mr. H. Krishnashastri of Madras.

Jain Manuscripts Bhandar of Patan: Mr. J. S. Kudalkar of Baroda.

A Note on the Tilakwada Copper-plate Inscription of the Time of King Bhoja Paramar of Malwa : Mr. J. S. Kudalkar of Baroda.

(8). The Sanskrit-papers Section: Chairman, Mahāmahopādhyāya Laxmanshastri Dravid of Calcutta. Eighty Pandits and scholars attended. The following papers were read.

The City Dvārakā: Mahāmahopādhyāya Hathibhai Shastri of Jamnagar.

The Pada and Vākya Bhāṣyas of the Kenopaniṣad: Pandit Shridhar Shastri Pathak of Poona.

The Time of Haribhadrasūri : Muni Jinavijayaji of Poona.

The Medical Properties of Indian Herbs: Purushottam-shastri Nanal of Poona.

The Importance of Sanskrit and its Study : Pandit Rama-shastri of Madras.

The Meaning of Śruti: Mr. Maganlal Shastri of Bombay.

The Viśiṣṭādvaita Principles : Padit N. Tirumalacharya of Bangalore.

A wrong Interpretation of the Mīmāṁsā Sūtra VI, 1, 24: Pandit G. V. Phadke of Ahmednagar.

The Viśeṣādvaita Philosophy : Pandit Virupaksha Wo-deyar of Indore.

IV. FOURTH SITTING, THE SAME DAY.

2-30 P. M. to 5-30 P. M.

16. Reading of papers in sections was again taken up.

(9). The Philosophy Section was presided over by Dr. Ganganath Jha. About eighty delegates attended and the following papers were read with discussion now and then.

Fallacies in Indian Logic : Principal G. C. Bhate of Sangli.

Some Aspects of the Doctrine of Pratibhā in Indian Philosophy : Pandit Gopinath Kaviraj of Benares.

The Relation of the Bhagavadgītā with Bādarāyaṇa Sūtras : Prof. R. D. Karmarkar of Poona.

The Springs of Action in Hindu Ethics : Mr. Sushilkumar Maitra of Calcutta.

Śaṅkara and Buddha : Mr. Pandurang Sharma of Poona.

Antiquity of the Bhagavadgītā : Mr. S. V. Venkateshwar of Madras.

Logic in the Philosophical Systems of Śaṅkara and Aristotle : Dr. Zimmermann of Bombay.

Śiva and Phallic Worship : Mr. G. K. Chandorkar of Dhulia.

(10) The Buddhism Section: Chairman, Dr. Satis Chandra Vidyabhusana of Calcutta. About seventy delegates

attended. The chairman opened the proceedings by a short speech on *The Revival of Buddhism* read for him by Mr. P. L. Vaidya of Sangli :—

'GENTLEMEN,

'Kindly allow me to thank you most heartily for the honour you have done me by electing me one of your Vice-Presidents and Chairman of the Section on Buddhism. The present Conference must be unique, held as it is under the Presidency of one who is the greatest living Orientalist in India—I mean Sir Ramkrishna Gopal Bhandarkar, the guiding spirit of an Institute, which, under the conduct of a band of scholars, trained up under his influence, is moving forward in the advancement of Oriental studies. For the first time in the history of modern India, scholars of the old and new schools, both Indian and European, have met together to discourse on profound topics connected with the Oriental Culture.

Providence has granted to our country the good fortune of being linked up with a state that has exemplified, throughout its history, a beautiful reconciliation of the forces of conservation and progress Treasuring up the experiences of the past, Great Britain has adapted itself to the measures of reform that the onward course of time showed to be necessary. India has need of the guiding hand of Britain at this juncture. The ancient learning of India does not, in this age, furnish a complete outfit of life. The exclusive spread of modern learning of the West, on the other hand, would efface the distinctive features of the Indian intellect and character. The Indian Government sees with a clear eye the need of a synthesis, and concerns itself as much with conservation of the ancient educational Institutions, as with the introduction of the useful sciences that this age prizes.

In the sphere of Oriental Scholarship, the ancient treasures of the land can be correctly appraised, if only they are presented in a form that can be appreciated all over the world, in accordance with the liberal and scientific methods which are followed in the West. This process would receive a stimulus from the holding of Conferences like the Congresses of Orientalists in Europe; and it redounds greatly

to the glory of the Bombay Presidency, that it has taken the lead in organising an assembly of this type for the first time on Indian soil. So many scholars have graced this assembly with their presence, and the subjects for discourse are so various in their nature, as to prove abundantly that the spirit of research has been awakened and our country is active in all its departments. This spirit of research, this eagerness to investigate afresh into the past acquisition of Indian intellect, is a gift of the West to the East. In ancient times the different branches of learning numbered fourteen, or according to some, eighteen. But the West has opened our eyes to richer fields of intellectual operation and multiplied the subjects of man's study to an enormous extent. It has further stimulated the study of the older subjects from new standpoints and according to new methods. As an instance of this, I proceed to give a short sketch of the Revival of Buddhist Studies in this country during the last century.

Interest in Buddhism roused in Europe.

A hundred years ago, none in Europe knew of Pali and Buddhism. Things were not better in India, where the people had lost all recollection of Buddha and his glorious doctrines. It is said that in the year 1687 A. D., Louis XIV of France sent an envoy named Loloubre to the king of Siam, who made a present of a bundle of Pali manuscripts to king Louis. Nothing, however, is known as to the kind of reception that was accorded to such a present at Paris. The Portuguese and the Dutch who ruled in Ceylon in the 17th and 18th centuries, in their zeal for establishing one religion on the earth and a universal brotherhood through the bond of Christianity, did not care to take notice of Pali or Buddhistic religion. Under them no native of Ceylon is said to have been eligible for a high appointment, unless he had embraced Christianity and assumed a Portuguese or Dutch surname. The country was administered according to the Roman-Dutch law. Luckily, Ceylon came into the possession of the British in 1811. With such a Portuguese and Dutch tradition behind him, it was no small courage on the part of Sir Alexander Johnston, the Chief Justice and first British member of the Executive Council of Ceylon, to move His

Majesty's Government at home to sanction the compilation, for the natives of the island, of a code of laws suitable to their peculiar religion, manners, usages and feelings. His Majesty granted the appeal. Sir Alexander also recommended to the Court of Directors at home the publication, with the text and a translation, of the *Mahāvaṁsa*, a Pali historical work giving a genuine account of the introduction and progress of Buddhism—a religion which, to quote the words of Sir Alexander, "whatever may be the nature and tendency of its doctrines, deserves the consideration of the philosopher and the statesman for the unlimited influence which it at present exercises over so many millions of the inhabitants of Asia." This work was prepared by Mr. Upham with the help of a Wesleyan Missionary, named the Rev. Mr. Fox, and printed in England. It was hailed with joy by the Asiatic Society of Bengal, in as much as it confirmed the identification of the Indian king Chandragupta with Sandrocottus of Greek writers and Devānaṁpiya Piyadasi of Indian inscriptions with Aśoka of the Pali Chronicle. In the meanwhile the Rev. Benjamin Clough published at Colombo in 1824, a Pali Grammar to unlock the treasure-house of Pali literature hitherto sealed to the civilized world. Messrs. Burnouf and Lassen published their essays on Pali at Paris in 1826 and 1827 respectively. George Turnour, another distinuished member of the Ceylon Civil Service, undertook to bring out a revised edition of Upham's *Mahāvaṁsa*, adding the chapters which had been left out. This edition saw the light in 1836. F. Spiegel, a German scholar, published in 1841 the Pali work of Kammavāca at Bonn, and in 1845 he published *Anecdota Palica* at Leipzig. In 1844 was published Burnouf's *Introduction to the History of Indian Buddhism*, a masterly work which challenged the attention of the whole Western world to Buddhism. In the same year Bishop Brigandet published from Burmese sources a comprehensive life of Buddha called the *Legends of Gautama*. In 1848 Rev. Hardy brought out a list of books in the Pali language, as also *Eastern Monachism*, *Manual of Buddhism*, and other valuable works from Singhalese sources. In 1855 Dr. Fausböll of Denmark published the Pali text of *Dhammapada* with a Latin translation and in 1861 the same scho-

lar brought out some of the Jātaka stories in Pali. Kaccāyana's *Pali Grammar* was published in the Bibliotheca Indica Series of Calcutta under the editorship of Dr. F. Mason in 1857. In 1866 Dr. Alwis published at Colombo, certain papers which aroused interest in the philosophy of Buddhism. In 1869 *Pātimokkha*, the manual of laws regulating the conduct of Buddhist monks and nuns, was printed at St. Petersburgh under the editorship of J. Minayeff. In 1870 R. C. Childers published the *Khuddakapātha* and in 1878 the *Mahāparinibbānasutta* with their translations. In 1875 the same scholar brought out a *Dictionary of the Pali Language* which marked an important epoch in the study of Pali. In 1871 Emile Senart published *Kaccayana's Pali Grammar* with notes in French. In 1874 Mutu Coomarswamy published the Pali text with translation of *Dathavaṁsa*. In 1876 P. Grimblot published at Paris seven Pali suttas of *Dīghanikāya*, while in 1877 a portion of the *Samyuttanikāya* was published by Dr. H. S. Feer. In 1879 the *Dīpavaṁsa*, with an English translation, was published by Dr. Oldenberg and subsequently the Vinaya texts were also brought out by him. In 1880 R. Pischel edited and translated the *Majjhimanikāya* and V. Trenckner edited the *Milinda Panha*. With the foundation of the Pali Text Society at London in 1882 by Professor T. W. Rhys Davids, commenced the systematic publication of Pali texts and commentaries, which has helped the spread of Buddhistic ideas all over the world.

The world again has gained much valuable information regarding Buddhism from the Chinese sources. Heinrich Julius Klaproth of Berlin published in 1802 his *Asiatsche Magazin* in which he gave some account of Buddhism as derived from the records of China. In 1811 M. Abel Remusat published at Paris an essay on the Chinese language, in which he gave some indication of the kind of information available from that language about Buddhism. His French translation of Fa Hian's Chinese account of India was published at Paris in 1836. In 1857 appeared Julien's French translation of the Chinese accounts of India given by Hiuen Tsang. But no scholar has given more information to the world regarding Chinese Buddhism than Rev. Beal, whose English translations of the records left by Chinese pilgrims

to India began to appear in 1869. Subsequently there flourished other Sinologists such as Edkins and Eitel, whose works have thrown considerable light on Chinese Buddhism.

The third source from which the world has obtained information regarding Buddhism is the Tibetan. The forbidden land of the Lamas has been the reservoir of numerous works on Buddhism which were translated into Tibetan a thousand years ago, but the Sanskrit and Pali originals of which have been lost to India. In 1774 A. D. the Tashi Lama of Tibet sent a high Tibetan official, three senior lamas, and nine novice monks to conduct religious services at Benares and Buddha Gaya. This embassy carried with it a letter of introduction to Chait Singh, who was then Raja of Benares. In the same year a certain Englishman, named George Bogle, was sent by Warren Hastings, the first British Governor-General of India, to Tashilhunpo in Tibet. In the year 1783 A. D. another Englishman named Samuel Turner was sent to Tibet also by Warren Hastings. In 1811 Thomas Manning, also an Englishman, made his way from India to Lhasa where he saw the 5th Dalai Lama. Though there was thus some political relation established between Tibet and India in the latter part of the 18th century, Buddhism and Tibetan literature exercised no influence in India at the time. The first contribution to the knowledge of the Tibetan language came from one Mr. Georgi, auother of *Alphabetum Tibetanum.* The work which supplied the real wants of European scholars was a *Tibetan Dictionary* with explanation in Italian published at Serampore, Bengal, in 1826. The Compiler was a Roman Catholic missionary who out of modesty chose to remain incognito. His work passed into the hands of another missionary gentleman of Bengal, Mr. Schroter, who substituted English for the Italian, and brought out the edition with a grant from the East India Company. The most comprehensive account, however, of Tibetan Buddhism was given by a Hungarian scholar named Alexander Csoma de Koros, who, anxious to find out the origin of his race in Central Asia, set out, when a mere boy, from Hungary and after undergoing untold privations succeeded in reaching Tibet where he studied the Tibetan language in a mona-

stery, living the life of an austere recluse. He brought out his Dictionary and Grammar in English, out of gratitude for the British patronage he received, in 1827 and 1834 respectively. The analysis of the *Kangyur* and *Tangyur* by him constituted the most valuable portion of the early numbers of the *Asiatic Researches*. Then followed Wassiljew, a Russian scholar, who during his ten years' residence at Pekin from 1840 to 1850, devoted himself to the study of the Chinese and Tibetan languages and gave unmistakable proof to the world that the "Russians, too, could do something for the learning." Wassiljew translated for the first time into the Russian language Lama Taranath's *Chos-byung* or the Tibetan History of Indian Buddhism, which was retranslated into German by Schiefner. M. Foucaux's *Rgya-cher-rol-pa* in Tibetan, was published at Paris in 1847. Koppen's *Religion of Buddhism* appeared at Berlin in 1857. Dr. Schlagintweit's *Buddhism from Tibetan Sources* was published at Leipzic in 1862. Next was Father Desgodins whose works, including a *Tibetan-Latin Dictionary*, were published at Verdun in 1872. Rev. H. A. Jaschke, a Moravian missionary, whose contributions to Tibetan literature had appeared as early as 1865, completed his well-known *Tibetan-English Dictionary* in 1881. Lt. Col. Waddell's *Lamaism* appeared in 1895.

Much valuable information regarding Mahāyāna Buddhism as taught in the Universities of Nālanda, Amarāvatī Odantapuri and Vikramśilā has been obtained from the vast mass of Buddhist-Sanskrit works that lie buried in the remote regions of Nepal. About 1820 A. D. Brian Houghton Hodgson, British resident in Nepal, sent a large and valuable collection of Buddhist-Sanskrit manuscripts as a present to the Asiatic Society of Bengal and he also contributed some valuable articles on the Buddhism of Nepal and Tibet to the journals of that Society. But it is a matter of regret that the manuscripts in question have not been utilised as they deserve to be, the majority of them remaining yet unpublished. A few Buddhist-Sanskrit works included in the Hodgson collection or obtained through other agencies, have been published in Europe, such as the *Mahāvastu* by Emile Senart in 1882. Several Buddhist

Sanskrit works discovered in Japan were published in the Anecdota Oxoniensis Series by Prof. Max Müller. The Bibliotheca Buddhica Series for the publication of Buddhist-Sanskrit works was started at St. Petersburgh in 1898.

The knowledge of Buddhism derived from Pali, Chinese, Tibetan and Sanskrit books has been greatly supplemented by what has been elicited from Epigraphic and Numismatic sources. Facilities were afforded for the publication of papers on Buddhism by the foundation in 1784 of the Asiatic Society of Bengal under the auspices of the British Government. The most important service of the Asiatic Society to the cause of Buddhism was the decipherment, in 1834, by James Prinsep, of the Aśoka inscriptions which had escaped the notice of keen observers like the Chinese pilgrims Fa Huen and Hiuen Tsang. These inscriptions became for some time "the wonder and despair of the learned." When deciphered, they supplied a connecting link between the history of India and that of other countries, containing such historical names as Antiochus Gnatus, Alexander of Epirus, Ptolemy Philadelphus, and Magus of Cyrene. Later on numerous other inscriptions on rocks, plates and coins were discovered and deciphered, which led to the foundation by the Government of India of the Archæological Survey Department in 1861 with General Cunningham as its Director. This Department, now working under the distinguished guidance of its present head, Sir John Marshall, by unearthing and collecting numerous important Buddhistic relics and remains, has helped in no small measure, the spread of Buddhistic knowledge.

Buddhism revived in India

I have tried to indicate from various sources the activities of European scholars from 1800 to 1880 A. D., when Pandit Satyavrata Samashrami of Calcutta, a Vedic scholar of wide reputation, brought out an edition of *Karaṇḍavyūha* an old Buddhist-Sanskrit work of the Mahāyāna school. This work supplies an explanation of the formula *Oṁ maṇi padmehuṁ,* styled *Ṣaḍakṣharī Mahāvidyā* or the great science in six syllables and best known in connection with the prayer-wheel of the Lamas of High Asia. The great

antiquarian Dr. Rajendra Lal Mitra, whose researches in the field of Sanskrit Literature and Epigraphy had won for him a European reputation, brought out in 1869 an edition of the *Lalitavistara*, at which he had, it is reported, been working since 1853. Subsequently Mahāmahopādhyāya Harprasad Shastri, C. I. E., Babu Pratap Chandra Ghose and others published certain Buddhist-Sanskrit works of the Northern school. But the person who did the most signal service to the cause of Buddhism, was the late Rai Sarat Chandra Das Bahadur, C. I. E., who founded the Buddhist Text Society in 1893 and published the *Tibetan-Sanskrit-English Dictionary* as well as a number of important Buddhist-Sanskrit and Pali works. I am in a position to bear personal testimony to the late Rai Bahadur's love of Buddhism and zeal in reviving it, inasmuch as I had the honour of collaborating with him for a series of years in many of his activities. The Mahābodhi Society was founded by the Anagārika H. Dharmapala of Ceylon at Calcutta in the year 1892 and in the same year the Buddha Dharmānkura Vihāra was established by the Bengal Buddhist Association. His Holiness the Tashi Lama of Tibet, during his tour in India in 1905–1906, founded in Calcutta a society called the Buddhist Shrine Restoration Society with Col. O'Connor, C. I. E., as its Director and myself as its Secretary. This review will not be complete without a reference to the services, in the cause of the revival of Buddhistic culture, of Justice Sir Asutosh Mookerjee, who, as the guiding spirit of the Calcutta University, took it up and made it popular among its alumni.

Character of the Revival

The researches on Buddhism made from different sides have opened before us a long forgotten stratum in the formation of Indian life, and have thrown a new light on the glorious past of our country. The history of India written in this light, will present the country in a new perspective. The canonical Buddhistic scriptures in Pali, which preserve the teachings of Buddha in their pristine purity, set forth the simple ideas and beliefs of the Indian people during the five centuries preceding the birth of Christ. From the non-canonical Pali literature, we get a glimpse of the internal

condition of India as known to the Ceylonese, Burmese and Siamese people at later times. The Buddhistic books in Chinese give us a faithful description of Indian life, social organisation and places of interest during the ascendency of the Mahāyāna Buddhism from the beginning of the Christian era to about 800 A. D. As to the value of the information derived from the Chinese sources, it is enough to say that even in these days it is the light that guides the steps of archaeologists in their fields of research. The Tibetans have preserved for us, in translation, the Mahāyāna Buddhistic literature of India properly classified from their point of view, which supplies a mass of most valuable historical and geographical information about India up to the 17th century A. D. The Buddhistic books in Sanskrit give, besides other things, an account of the conflict between Brahmanism and Buddhism and of the precarious condition of the latter in its place of shelter in Nepal after its banishment from India.

The information gained from these sources has roused us as if by a trumpet-call to read the history of our country anew and to re-write it from a new stand-point—the stand-point of Buddhism. The country, seen through such a history, will shine out in a new glory and splendour. It will bring a new message to the world to inspire many struggling souls with a new hope, to stir new activities, to strengthen the drooping heart and to open before all a new world of thought.

The life-long labours of a noble band of scholars, pursued oftentimes under difficult and even impossible conditions, have thus at length awakened the Indian mind to the fact that 2500 years ago, there lived and preached an Indian prophet named Buddha, who, by the sublimity of his teachings, conquered the heart of Asia and won for India the glorious title of 'the Holy Land.' This awakening means a great deal more. It has brought back to India the highest ideal which is to be realised through a life of peace, amity and good will, not only between man and man, but also between man and other living beings. It has brought back that Philosophy which solves for humanity the most intricate problems of existence, by the rational interpretation of the

harmony of all conditions in the Absolute. It has brought back Buddha, the embodiment of supreme bliss, to proclaim once more from the holy land of India, with a voice mighty like "the sounds of many waters," in the midst of the clashing of passions and desires and the storm and stress of modern life, the birth of a New Age—the age of regenerate and passionless life of peace and humanity."

After the address was over, the following papers were read and discussion followed.

Vinaya Literature of the Buddhists : Prof. N. K. Bhagwat of Bombay.

The Burning of Mithila : Prof. C. V. Rajwade of Baroda.

Sogata Nāyasattham or the Buddhist Philosophy : Thera Widurpola Piyatissa of Ceylon.

(The last paper was delivered in Pali).

(11) The Ancient History Section met under the chairmanship of Prof. S. Krishnaswami Aiyangar. About one hundred scholars attended. The following papers were read with some discussion on each.

The basic Blunder in the Reconstruction of Indian Chronology by Orientalists: Mr. M. K. Acharya of Madras.

Karnatak and its Place in the Indian History : Mr. V. B. Alur of Dharwar.

The Kings of Āryāvarta defeated by Samudra-Gupta: Mr. K. N. Dixit of Patna.

Notes on the ancient History and Geography of Konkan Prof. P. V. Kane of Bombay.

The ancient Germans, their Manners, Customs etc. : Dr. J. J. Mody of Bombay.

Karnatak Country and its Language : Mr. R. Narsimhachar of Mysore.

Jāṅgaladeśa and its Capital Ahicchatrapura : Mr. Harbilas Sarda of Ajmer.

The Gupta Era : Mr. H. A. Shah of Bombay.

A Peep into Mediaeval Deccan : Mr. S. V. Venkataramanayyar of Tellichery.

The Vajji-Country and the Mallas of Pava: Mr. Harnandan Panday of Patna.

(12) The Philology and Prakrits Section was presided over by Prof. V. K. Rajwade. About forty delegates attended. The following papers were read with some discussion.

The Phonogensis of the wide E and O in Gujarātī: Mr. N. B. Divatia of Bandra (Bombay).

Apabhraṁśa Literature and its Importance to Philology: Dr. P. D. Gune of Poona.

Common elements in the Gujarātī and Gypsy Languages: Rao Bahadur Ramanbhai Mahipatram of Ahmedabad.

Dialects of the Burmese: Mr. L. F. Taylor of Burma.

FIFTH SITTING, FRIDAY, THE 7TH NOVEMBER 1919.

8-30 A. M. to 10-30 A. M.

17. This sitting was again a general one, where all the delegates and some visitors gathered in the pandal at 8-30 A. M. to listen to further papers reserved for a general sittting. Dr. Satis Chandra Vidyabhusana, the second Vice-President was in the chair, as Principal A. C. Woolner had to read his own paper. The following papers were read almost in extenso.

The Philological Argument for the upper Limit to the Age of the Ṛgveda: Principal A. C. Woolner of Lahore.

The Nakṣtras and Precession: Mr. G. R. Kaye of Simla.

The early History of the Gurjaras: Dr. R. C. Majumdar of Calcutta.

King Akbar and the Persian Translations from Sanskrit: Dr. J. J. Mody of Bombay.

Notes on the early sea-borne Commerce of Western India: Principal H. G. Rawlinson of Dharwar.

The Devanāgarī Recension of the Mahābhārata: Mr. N. B. Utgikar of Poona.

Five more papers were not read as the writers were not present; and the papers of Prof. V. K. Rajwade and

Dr. Satis Chandra Vidyabhusana were left to be read in the afternoon session.

An informal meeting for discussing the problems of the text and the illustrations of the *Mahābhārata* was held at 1 p. m. The following scholars attended:—Principal A. C. Woolner, Dr. Satis Chandra Vidyābhusana, Prof. D. R. Bhandarkar, Rai Bahadur Dayaram Sahni, Mahāmahopādhyāya Lakshman Shastri Dravid, Pandit Vasudevashastri Abhyankar, Prof. S. Kuppuswami Shastri, Prof. S. Krishnaswami Aiyangar, Dr. R. Zimmermann, Mr. V. P. Vaidya, Dr. T. K. Laddu, Mr. C. V. Vaidya, Prof. M. Hiriyanna, Prof. K. B. Phatak, Mr. G. R. Kaye, Principal Harley, Dr. S. K. Belvalkar, Prof. R. D. Karmarkar, Mr. N. B. Utgikar, Dr. P. D. Gune, Some other delegates also attended.

Discussion took place on the point raised by Mr. C. V. Vaidya, whether the Mahābhārata Editorial Committee could tamper (as he called it) with the text of the Epic. Instead of selecting the best reading and finding out interpolations, the best course, he thought, would be, to take the oldest Ms. of the epic and print it as text and show all deviations therefrom in the foot-notes. But the question was found to be rather late in the day, as the present position in regard to the fixing of the text was taken after careful consideration and previous consultation with scholars who ought to know. European scholars, both here and abroad, had also signified their approval of the method adopted. Secondly, it was thought that the text was already so often tampered with in order to enlarge it, that a fresh tampering (if it could be so called) on approved methods, and with a view to approximate the original text as far as possible, need not be felt amiss. No definite resolution, however, was felt necessary.

The question of the drapery was also discussed and scholars, especially Rai Bahadur Dayaram Sahni of the Archaeological Department, offered valuable suggestions, which Shrimant Balasaheb Pant Pratinidhi undertook to observe as far as possible.

SIXTH SITTING, THE SAME DAY,

2-30 P. M. to 4-30 P. M.

18. The conference resumed its sitting in the afternoon when Principal A. C. Woolner took the chair. Prof. V. K. Rajwade was then called upon to read his paper. He spoke on the important points in his paper on *Asurasya Māyā.* After he had done, Dr. Satis Chandra Vidyabhusana followed with his paper on *Nāgārjuna, the earliest Writer of the Renaissance Period.*

After the reading of the papers was over, by 3–30 P. M., the Conference took up the consideration of the recommendations of the Committee appointed at the First Sitting

to consider the suggestions of scholars regarding the constitution of the Conference etc. The Committee sat after 5-30 P. M. on Thursday and after full deliberation made the following report.

"(1) That the invitation from Sir Asutosh Mookerjee, on behalf of the Council of Post-graduate Teaching of the Calcutta University, to hold the next session of the Conference at Calcutta, be accepted.

(2) That the next session of the Conference be held not earlier than 1921.

(3) That the Secretaries of the Conference should continue as Secretaries for the printing and publishing of the Proceedings and the papers of the Conference.

(4) That the Secretaries will select the papers to be published, after consultation with the Vice-Presidents and Sectional Chairmen.

(5) That in view of the Bhandarkar Institute having undertaken to organise the Conference, the Conference resolves that the surplus of the funds, if any, after meeting all the expenses of the Conference, be made over with all books, fixtures etc. to the Institute."

The adoption of the Report was moved from the chair and carried unanimously. The following recommendation of the Committee was also put from the chair and unanimously passed.

"(6) That while acknowledging the work being done by the several Governments, and Native States in the collection and preservation of ancient manuscripts, the Conference considers it desirable that arrangements be made by them for more thorough and rapid collection thereof to prevent permanent loss to the country of the valuable manuscripts."

The business of the adoption of the Report of the Committee being thus finished, the following resolution was proposed by Prof. D. D. Kapadia and seconded by Dr. I. J. Taraporewala.

"That the Conference expresses its sense of gatitude to the different Governments, States and Gentlemen who have

helped the First Oriental Conference by money contributions, by lending rare articles for the exhibition and in other ways." It was carried unanimously.

Prof. S. Krishnaswami Aiyangar proposed and Prof. S. Kuppuswami Shastri seconded, a hearty vote of thanks to the Vice-Presidents for having ably conducted the session of the First Conference of its kind in India.

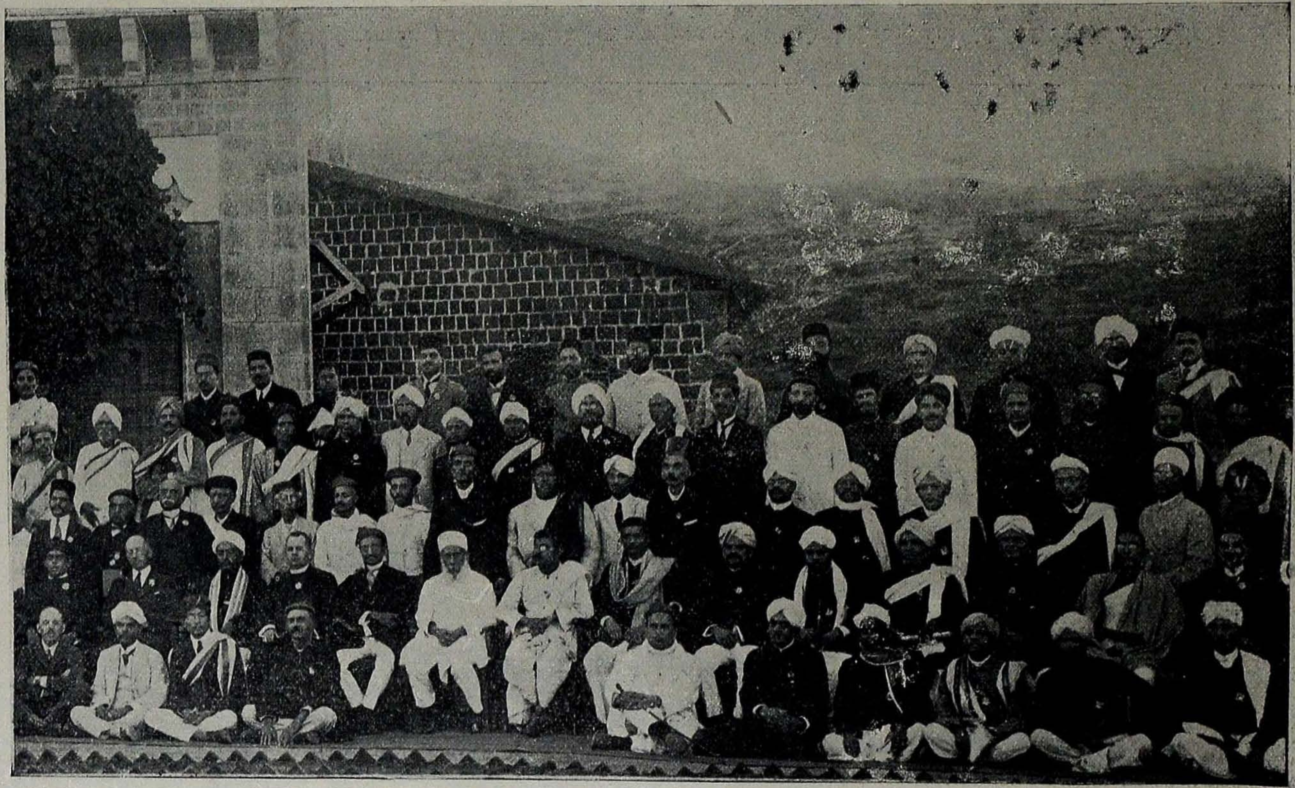
A vote of thanks to the Working Committee of the Conference and the Volunteers was proposed by Dr. Ganganath Jha and seconded by Mr. K. N. Dixit and was carried.

Dr. Satis Chandra Vidyabhusana then thanked the members of the Conference for having paid him the very high honour of electing him one of the Vice-Presidents, an event which he considered as the crowning piece of his life.

Principal A. C. Woolner, while announcing that the proceedings were over, said that until the moment of his arrival in Poona, he had scarcely expected that he would be called upon to perform such an honourable, but at the same time an onerous function. But he was thankful to all, that, with their help and co-operation, he had been able to carry the proceedings of the Conference—the first of its kind in India, to a successful conclusion.

Dr. P. D. Gune then expressed the joy of his colleagues and the Working Committee, that the task they had undertaken with enthusiasm, had come to such a happy end. He also sincerely thanked, on behalf of his colleagues and himself, all those, without whose co-operation the Conference would not have been what it was in the opinion of all, 'an unqualified success.'

The delegates then proceeded to the grounds of the Institute, where they were photographed in the distinguished company of Their Excellencies, who had specially come for that function, and the Chiefs of Sangli, Aundh and Miraj. After this was over, they were treated to a garden party by the members of the Institute. Distinguished scholars from different parts of the country were introduced to Their Excellencies, who had a kind word to say to every one of them.



The Delegates of the First Oriental Conference.

The delegates of the Conference. Their Excellencies, are seen on the right between the Chief of Aundh and Miraj.

APPENDIX A.

List of the Delegates of the First Oriental Conference.

These fall into the Patron, Vice-Patrons, and Ordinary Delegates. The names of the latter are given in the following order :—(1) representatives of the Universities, (2) representatives of learned Oriental Institutions, including Museums, (3) representatives of Governments and States and (4) those who were elected delegates by the Working Committee of the Conference.

Patron.

His Excellency Sir George Ambrose Lloyd, G. C. I. E. D. S. O., Governor of Bombay.

*Vice-Patrons.**

Shrimant Appasaheb Patwardhan, Chief of Sangli.
Shrimant Balasaheb Pant Pratinidhi, Chief of Aundh.
Shrimant Bhausaheb Patwardhan, Chief of Jamkhandi.
5 Shrimant Babasaheb Pant Sachiv, Yuvaraj of Bhor.
Sir Dorab Tata.
The Hon'ble Mr. Keshavrao, Hyderabad.
Mr. V. P. Vaidya, B. A., Bar-at-law, J. P., Bombay.
Mr. Hiralal Amratlal Shah, B. A., Bombay.

(1) *Representatives of the Universities.*

10	Dr. Ganganath Jha, M. A., D. Litt.	Allahabad University.
	Prof. M. H. Nasiri, M. A.	,,
	Mr. P. V. Kane, M. A., LL. M.	Bombay University.
	Dr. R. Zimmerman, Ph. D.	,,
	Prof. D. R. Bhandarkar, M. A.	Calcutta University.
15	,, S. Khuda Bukhsh, M. A., B. C. L.	,,
	Dr. R. C. Majumdar, M. A., Ph. D.	,,

* Those who contributed Rs. 100 each towards the expenses of the Conference. The Chief of Sangli contributed Rs. 150.

	Dr. I. J. S. Taraporewalla, B.A., Ph.D.	Calcutta University.
	Dr. Gaurangnath Banerji, M.A., B. L., Ph. D.	Council of Post-Graduate Teaching in
	Mr. Susilkumar Maitra, M. A.	Arts, Calcutta.
20	„ Radhakamal Mukerji, M. A.	„
	The Hon'ble Dr. A. Suhrawardi, M. A., Ph. D.	„
	Principal Raghubir Dayal, M.A., M.O.L.	Punjab University.
	„ A. C. Woolner, M. A.	

(2) *Representatives of learned Institutions.*

	Dr. P. N. Daruvalla, Ph. D.	Anthropological Society, Bombay.
25	Rao Bahadur P. B. Joshi, F. R. G. S.	
	Mr. R. P. Masani, M. A.	„
	„ S. S. Mehta, B. A.	„
	Dr. J. J. Modi, B. A., Ph. D.	„
	Mr. K. A. Padhye, B. A., LL. B.	„
30	„ J. A. Saldanha, B. A., LL. B.	„
	Dr. R. Zimmermann, Ph. D.	„
	Mr. R. D. Banerji, M. A.	Asiatic Society, of Bengal.
	Dr. Harprasad Shastri, C. I. E., Ph. D.	
	The Hon'ble Dr. A. Suhrawardy, M. A. Ph. D.	„
	Dr. Satis Chandra Vidyabhusana, M. A. Ph. D.	„
	Sardar K. C. Mehendale, B. A.	Bharat Itihasa Samśodhaka Mandal, Poona.
35	Mr. D. V. Potdar, B. A.	
	Rao Bahadur C. V. Vaidya, M. A., LL. B.	
	Maharajah Kumar Maninath Niranjan Chakrabutti	Birbhum Research Society, Hetampur.
	Mr. Harikrishna Mukerji	
	„ P. V. Kane, M. A., LL. M.	Bombay Branch of the Royal Asiatic Society, Bombay.
	Dr. J. J. Modi, B. A., Ph. D.	
	Mr. G. K. Nariman	
	„ V. P. Vaidya, B. A., Bar-at-Law, J. P.	
	Dr. R. Zimmermann, Ph. D.	„
40	Mr. B. T. Anklesaria. M. A.	Cama Oriental Institute, Bombay.
	Dr. D. Mackichan, M.A., D.D., LL., D.	

	Mr. R. P. Masani, M. A.	Cama Oriental Ins-
	Dr. J. J. Modi, B. A., Ph. D.	titute, Bombay.
	Mr. G. K. Nariman	„
	Sir Poonambalam Arunacha- lam Kt.	Ceylon Branch of the Royal Asiatic So-
	Dr. P. E. Pierin	ciety.
	Mr. N. B. Divatia, B. A.	Gujarat Vernacular
45	Prof. A. B. Dhruva, M. A., LL. B.	Society, Ahmed-
	Rao Badadur Ramanbhai Mahi-	abad.
	patram Nilkanth, B. A., LL. B.	„
	Prof. B. K. Thakore, B. A.	„
	Mr. S. K. Hodiwalla, B. A.	Jarthoshti Din ni
	Dr. J. J. Modi, B. A., Ph. D.	Khol Karnari Man-
	Mr. G. K. Nariman	dali.
	Mr. V. B. Alur, B. A., LL. B.	Karnatak Itihasa
50	„ R. K. Asundi, B. Sc., B. A.	Mandal, Dharwar.
	„ B. N. Datar, M. A.	„
	„ N. R. Deshpande, B. A.	„
	„ R. S. Nargundkar, B. A., LL. B.	„
	Rajasabhavibhushan Karpur Shrinivasrao, B. Sc., L. C. E.	Karnatak Sahitya. Parishad, Bangalore
55	Pandit Virupaksha Wodeyar	Lingayat Education Association, Dhar- war.
	Mr. K. A. Ghaswalla, Bar-at-Law.	Literary and Philoso-
	Prof. R. P. Patwardhan, M. A.	phical Club, Poona.
	Mr. M. B. Pithawalla, B. A. B. Sc.	„
	Prof. B. K. Thakore, B. A.	„
	Mr. C. R. Krishnamacharlu	Nellore Progressive
60	„ K. A. Viraraghavachariar	Union, Nellore.
	Pandit G. V. Phadke	Sanatan Dharma Sa- bha, Ahmednagar.
	Pandit Mangalramji Sharma	Sanskrit Sabha, Eta- wah.

	Dr. Gauranganath Banerji, M. A., B. L., Ph. D.	Sanskrit Sahitya Parishad, Calcutta.
	Mr. G. K. Chandorkar, B. A., LL. B.	Saṭkaryottejaka Sabha, Dhulia.
	Mr. D. G. Padhye, M. A.	Students' Literary and Scientific Society, Bombay.
65	,, G. B. Vaidya, B. A.	

(3) *Representatives of Museums.*

	The Curator	Barton Museum, Bhavnagar.
	Mr. J. S. Kudalkar, M. A., LL. B.	Central Library, Baroda.
	Prof. D. R. Bhandarkar, M. A.	Indian Museum, Calcutta.
	The Curator	King Edward Museum, Bhopal.
	Mr. G. V. Acharya, B. A.	Watson Museum, Rajkot.
70	,, D. B. Diskalkar, M. A.	

(4) *Representatives of Governments and Native States.*

	Prof B. R. Arte, M. A.	Government of H. H. the Gaekwad, Baroda.
	,, C. V. Rajwade, M. A., B. Sc.	
	Mahāmahopādhyāya Lakshman Shastri Dravid	Government of Bengal.
	Principal A. H. Harley, M. A.	,,
75	Dr. Musharraf-ul Haq, Ph. D.	,,
	Shams-ul Ulama Mir Muhammad	,,
	Mahāmahopādhyāya Pramothonath Tarkabhushan	,,
	Mahāmahopādhyāya Dr. Satis Chandra Vidyabhusana, M. A. Ph. D.	,,
	Shams-ul Ulama Mufti Muhammad Abdulla Tonki	,,
	,, ,, Abu Nasr Muhammad Waheed, M. A.	,,

80	Prof. H. B. Bhide, M. A. LL. B.	Government of the
	Mr. K. A. Enti, B. A. LL. B.	Bhavnagar State.
	„ J. S. Gambhir, B. A.	„
	„ J. J. Kania, B. A.	„
	Prof. C. Duroiselle	Government of
85	Mr. Taw Sein Ko, C. I. E.	Burma.
	Prof. G. S. Apte, M. A., B. Sc.	Government of H.
	Prof. A. Khan Saqib, M. A.	H. the Maharaja Scindia of Gwalior.
	Mr. Abdul Haq, B. A.	Government of H. E.
	Prof. Jamil-ur-Rahman, M. A.	H. the Nizam of
90	Meer Mahbub Ali Sahib	Hyderabad.
	Hakeem Muhammad Afzal Sahib	„
	Maulavi Sayyid Ghulam Hussain Munshi Fasil Maulavi Fazil	„
	„ Sayyid Muhammad Mazhar Maulavi Fazil	„
	„ Sayyid Mohammad Murtuza Maulavi Fazil	„
95	„ Sayyid Mukhtar Ahmed Sahib	„
	Mr. G. Yazdani, M. A.	„
	Pandit Girdharlal Sharma	Government of the
	„ Ratilalji, B. A.	Jhalwar State.
	Pandit Bisweshwarnath Reu	Government of Jodhpur State.
100	Mr. R. Shrinivas Raghav Aiyangar, M. A.	Government
	„ C. P. Venkataram Aiyar, M. A., L. T.	of Madras.
	„ S. V. Venkatesvar Aiyar, M. A., L. T.	„
	„ R. Krishnamachariar	„
	Rao Saheb H. Krishna Shastri, M. A.	„
105	Prof. S. Kuppuswami Shastri, M. A.	„
	Muhammad Naimur Rahman Sahib Bahadur, M. A.	„
	Diwan Bahadur L. P. Swami Kannu Pillai, M. A., LL. B., Bar-at-Law, I. S. O.	„
	Mr. S. Subba Rau, M. A.	„

Prof. M. Hiriyanna, M. A. L. T. — Government of H.
110 Mr. R. Shamashastri, B. A. — H. the Maharaja
Principal C. Venkataramanaiya — of Mysore.
Mr. R. Narasimhachar, M. A. Director of Archaeology.

Munshi Ziaul Hasan Alavi, M. A. — Government of the United Provinces.

(5) *Delegates elected by the Working Committee.*

Prof. K. V. Abhyankar, M. A., Ahmedabad.
115 Mr. S. V. Abhyankar of Poona.
Pandit Vasudevashastri Abhyankar, Poona.
Mr. M. K. Acharya, B. A., Madras.
,, N. S. Adhikari, M. A., Gandevi.
,, C. D. Advani, B. A., LL. B., Hyderabad, Sind.
120 Prof. S. KrishnaswaniAiyangar, M. A., Madras.
,, R. Swaminath Aiyar, B. A., Madras.
Mr. V. Natesh Aiyar, M. A., Lahore.
,, J. L. Allen, Sindh.
,, M. A. Ananthalwar, Madras.
125 Principal R. G. Apte, B. A., Poona.
,, R. N. Apte, M. A., Kolhapur.
,, V. G. Apte, B. A., Poona.
Pandit V. V. Apte, Ratnagiri.
Mr. R. B. Athavale, B. A., Ahmedabad.
130 ,, Shve Zan Aung, B. A., Kyanktan.
,, S. Bakarali, B. A., Poona.
Prof. Abdul Bari, Dharwar.
Mr. Muhammad Beg Sahib, Hyderabad, Deccan.
Dr. S. K. Belvalkar, M. A., PH. D. Poona.
135 Mr. H. J. Bhabha, B. A., Bombay.
Prof. R. G. Bhadkamkar, M. A., Bombay.
Prof. N. K. Bhagwat, M. A., Bombay.
Dr. V. V. Bhagwat, L. M. & S., Poona.
Mr. A. S. Bhandarkar, M. A., Poona.
140 Dr. P. R. Bhandarkar, L. M. & S. Indore.
Principal G. C. Bhate, M. A., Sangli.
Mr. H. R. Bhatheja, B. A. (Oxn.), M. A. (Bom.), Patna
,, R. K. Bhide, B. A., Nasik.
Pandit Bhimacharya, Bombay.

145 Mr. M. R. Bodas, M. A., LL. B., Bombay.
„ Mahima Niranjana Chakrabarty, Calcutta.
Sardar Y. M. Chandrachuda, Poona.
Mr. C. A. Chavan, Poona.
„ E Clements, I. C. S., Dharwar.
150 Hon'ble Mr. J. G. Covernton, M. A., Poona.
Prof. N. G. Damle, M. A, Poona.
„ F. C. Davar, M. A., LL. B., Bombay.
Mr. D. D. Dave, B. A., Gandevi.
„ H. K. Deb, M. A., Calcutta.
155 Prof. T. K. Deolalkar, M. A., Dharwar.
Mr. S. M. Desai, Navsari.
Prof. D. B. Devadhar, M. A. Poona.
Rao Bahadur K. B. Deval, Sangli.
Mr. K. N. Dixit, M. A., Lucknow.
160 „ K. S. Dixit, B. A., Poona.
Prof. K. N. Dravid, M. A., Sangli.
Mr. N. H. Shastri Dravid, Indore.
Dr. G. Dubreuil, D. Litt. (Paris), Pondicherry.
Mr. M. Firozuddin Khan, Gulburga.
165 Prof. A. B. Gajendragadkar, M. A., Dharwar.
Pandit S. D. Gajendragadkar, Bombay.
Mr. T. D. Gajra, B. A., Shikarpur.
„ M. B Garde, B. A., Gwalior.
Prof. D. R. Gharpure, M. A., B. Sc., Poona.
170 Mr. M. Ghose, M. A., Patna.
„ A. G. Ginvardhana.
Hon'ble Divan Bahadur K. R. Godbole, M. C. E., Poona.
Mr. P. R. Godbole, B. A., Poona.
Mr. P. K. Gode, M. A., Poona.
175 „ G. K. Gokhale, M. A., Dharwar.
„ L. R. Gokhale, Poona
Dr. V. C. Gokhale, L. M. & S., Poona.
Dr. P. D. Gune, M. A., Ph. D., Poona.
Mr. B. G. Gunjikar, Dharwar.
180 „ Y. R. Gupte, Poona.
Mahāmahopādhyāya Hathibhai Harishankar Shastri Jamnagar.
Mr. C. Hayavadana Rao, B. A., Bangalore.
Sardar Abasaheb Heblikar, Poona.

Sardar Balasaheb Heblikar, Poona.
185 Rai Bahadur Hiralal, Wardha.
Prof. V. K. Joag, M. A., Poona.
Mr. C. V. Joshi, M. A., Ratnagiri.
" K B. Joshi, Belgaum.
" K. G. Joshi, B. A., Poona.
190 " R. B. Joshi, Poona.
Mr. Vishvanath Shastri Joshi, Nasik.
Mr. W. J. Joshi, M. A., Ratnagiri.
" G. P. Josyer, Bar-at-Law, Bangalore.
" G. N. Kale, Jalgaon.
195 " S. G. Kale, M. A., Phaltan.
Prof. G. G. Kanetkar, M. A., Jubbulpore.
Mr. H. J. Kania, B. A., Bombay.
Mr. P. D. Kanitkar, B. A., Bhor.
Prof. D. D. Kapadia, M. A., B. Sc., Poona.
200 Mr. Motilal K. Kapadia, B. A., LL. B., Bombay.
Prof. R. D. Karmarkar, M. A., Poona.
Mr. M. V. Kathawate, B. A. LL. B., Wai.
Krishnashastri Kavade, B. A., Poona.
Mr. G. R. Kaye, Simla.
205 Dr. S. V. Ketkar, Ph. D., Nagpur.
Mr. V. B. Ketkar, Poona.
" M. N. Khan, Poona.
Rao Bahadur G. N. Khare, B. A., Poona.
Dr. R. V. Khedkar, L. M. & S., Poona.
210 Mr. R. T. Kirtane, B. A., LL. B., Poona.
" N. V. Kolhatkar, B. A., Bombay.
" C. R. Krishnacharya, Madras.
" P. D. Kulkarni, (Pandurangasharma), Poona.
Pandit Lakshmipathi Shastri, Pithapuram.
215 Prof. Narendranath Law, Calcutta.
Mr. A. M. Lokhande, Poona.
" G. B. Makoday, Indore.
Dr. Harold H. Mann, D. Sc, Poona.
Mr. G. S. Mavlankar, Baramati.
220 " Balwantrai M. Mehta, Bhavnagar.
Prof. N. D. Minocher Homji, B. A., Poona.
Mr. V. V. Mirashi, M. A., LL. B., Nagpur.
" P. P. Mitragotri, Dharwar.

Mr. B. L. Modak, L. C. E., Poona.
225 „ A. G. Mundle, Yeotmal.
Prof. R. K. Mukerjee, M. A., Mysore.
Sardar Abasaheb Muzumdar, Poona.
Mr. Jamshedji Dadabhai Nadirshah, Bombay.
Purushottam Shastri Nanal, Poona.
230 Mr. H. Narainrao, Bombay.
„ M. A. Narayanshastri, Bangalore.
„ P. V. Narsingrao, Bangalore.
Mr. Gaurishankar Ojha, B. A., Ajmer.
„ M. P. Oka, Poona.
235 Pandit Bhimacharya S. Ottamgadkar, Bombay.
Dr. G. S. Palsule, Poona.
Mr. Harnandan Panday, B. A., Patna.
Prof. V. G. Paranjpe, M. A., LL. B., Poona.
Hon'ble Mr. R. P. Paranjpye, M. A., B. Sc., Poona.
240 Rao Bahadur D. B. Parasnis, Satara.
Mr. R. C. Parikh, B. A., Bombay.
Prof. K. B. Pathak, B. A., Hubli.
Pandit Shridharshastri Pathak, Poona.
Prof. M. T. Patwardhan, M. A., Poona.
245 Mr. R. V. Patwardhan, B. A., LL. B., Poona.
„ Laxmanrai Prasad, Calcutta.
„ P. E. Percival, I. C. S., Poona.
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Prof. V. K. Rajwade, M. A., Poona.
Pandit V. Ramchandracharya, Nellore.
Mr. Ramgopal, Bar-at-Law, Bangalore.
255 „ G. V. Ranade, Poona.
Prof. R. D. Ranade, M. A., Poona.
Mr. S. V. Ranade, Poona.
„ T. V. Ranade, Poona.
„ V. V. Ranade, Poona.
260 „ Y. V. Ranade, Poona.
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Rai Bahadur Dayaram Sahni, M. A., Patna.
265 Mr. G. E. Saklatwalla, Bombay.
,, Harbilas Sarda, B. A., LL. B., Ajmer.
,, V. S. Saravte, B. A., LL. B. Indore.
Dr. N. G. Sardesai, L. M. & S., Poona.
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270 Mr. V. V. Sathaye, B. A., Poona.
,, S. N. Sathe, Poona.
Secretary, Sk. Pustakonnati Sabha, Etawah.
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,, M. Shahidullah, M. A., Calcutta.
275 Prof. A. K. Shaikh, M. A., Bombay.
Mr. A. K. Sharma, Patiala.
Prof. M. G. Shastri, M. A., Poona.
Mr. R. A. Shastry, Baroda.
Pandit Hari Krishna Telang, M. A., Jubbulpore.
280 Pandit Vasudevashastri Shedanikar, Poona.
Dr. P. V. Shikhare, L. M. & S., Poona.
Mahatma Shridatta Lakshraj.
Prof. C. S. Shrinivasachar, M. A., Madras.
Mr. V. S. Shrinivasan, Madras.
285 Pandit S. V. Shriramshastri, Bezwada.
Prof. K. N. Sitaram, M. A., Kullidaikurichy.
,, K. Sitaramaiya, B. A., Vemur.
,, V. V. Sowani, M. A., Meerut.
Mr. G. Somanna, Nellore.
290 ,, S. Subbarao, M. A., Madras.
Pandit Vangwei Subbarao, Pithapuram.
Dr. V. A. Sukthankar, Ph. D., Indore.
Mr. T. Suryanarayanrao, Kovur.
Mr. V. B. Takalkar, M. A., Poona.
295 Mr. L. F. Taylor of Burma.
,, R. G. Terigundi, M. A., Dharwar.
Pandit N. Tirumalachariar, Bangalore.
Mr. K. Tirumalarao, B. A., L. T., Aurangabad.
,, S. A. Tivari, Hyderabad.
300 Mr. J. R. Tullu, B. A., Indore.
Dr. J. M. Unwala, B. A., Ph. D., Bombay.
Mr. W. G. Urdhvareshe, B. A., Indore.
,, N. B. Utgikar, M. A., Poona.

Mr. Durgaprasad V. Vaidya, Bombay.
305 Prof. P. L. Vaidya, B. A., Sangli.
Mr. K. S. Vakil, B. A., Poona.
Mr. Gaurishankar G. Varma, Bar-at-Law, Ajmer.
Prof. S. Varma Shastri, M. A., Shrinagar.
K. Venkatachal Shastri, Bijapore.
310 ,, A. K. Vesawewala, B. A., Bombay.
Pandit B. Vidyabhushan, Calcutta.
Sardar Balasaheb Vinchurkar, Poona.
Prof. S. V. Visvanath, M. A., L. T., Trichinopoly.
Mr. B. Vyasrao, B. A., Lt., Aurangabad.
315 Mr. V. V. Waikar, Surat.
Prof. A. G. Widgery, M. A., Baroda.
Rev. Widurupola Piyatissa, Dhanuskoti.
Mr. Apparaju Wodeyar, Dharwar.
,, S. K. Wodeyar, Dharwar.

APPENDIX B.

An alphabetical list of the Institutions, Governments, and persons, who lent exhibits for the Exhibition in connection with the First Oriental Conference, Poona. The more important exhibits only are mentioned.

(1) *The Āndhra Pariśodhaka Mahāmaṇḍala*, Pithapuram, sent coins, copperplates and some photos. The following were the most interesting of them.

- (*a*) A copperplate grant of the Reddy dynasty. Date 1400 A. D.
- (*b*) Fifteen old coins found while digging, and seven new coins, of the South Indian dynasties of kings.

(2) *The Archaeological Museum*, Madras, sent (a) sets of copperplate-grants, (b) five caskets from Bhattiprolu relics and (c) fifteen sets of coins.

- (*a*) Copperplate-grants of (1) the Calukyan, (2) Gaṅga, (3) Cola, (4) Pallava, (5) Pāṇḍya, and (6) Vijayanagar dynasties.
- (*b*) Two relics from the first Bhattiprolu casket and one each from the second and the third.
- (*c*) Punch-marked coins, Buddhist coins, and coins from several South Indian Dynasties like the Kadamba, the Gaṅga, the Cola, the Pāṇḍya etc. There were also numerous gold coins from Kodur.

(3) *The Bhandarkar Oriental Research Institute*, Poona, lent (a) birch-bark, (b) palm-leaf, and (c) paper manuscripts and (d) an old astronomical instrument. The more important only of these are mentioned below.

- (*a*) A birch-bark manuscript of (1) the *Ṛgveda* in Śāradā characters, an old script of Kashmir. This Mss. was used by Max-Müller for his edition of the *Ṛgveda*, and bears ample traces of that scholar's work in the form of marginal notes and marks. Another birch-bark Ms., of (2) the *Śakun-*

talā, also in Śāradā script, was procured for Government by Dr. G. Bühler along with the above one. This is evidently a valuable recension of the *Śakuntalā*. The birch-bark in both the cases appears to have been specially treated and being very thin, is written only on one side. Two such leaves are now pasted together back to back, in order that the crumbling process, which has already set in, might not develop rapidly.

(*b*) Among the palm-leaf Mss. the oldest and therefore the most important were (1) *Viśeṣāvaśyakabhāṣya* and (2) the *Viśeṣāvaśyakacūrṇi*, both belonging to the sacred literature of the Jainas.

(*c*) Of the paper Mss., (1) the *Agniveśya Rāmāyaṇa* is about five hundred years old; and (2) the *Bhāgavatapurāṇa* is profusely illuminated in the early Mogul style of painting.

(*d*) The astronomical instrument was procured for Government by Sir R. G. Bhandarkar, and is now being worked up by Mr. G. R. Kaye of Simla.

(4) The *K. R. Cama Oriental Institute*, Bombay, sent five exhibits in all, some of them very valuable.

(1) *Ijasne ba Maini*, a Sanskrit translation of Yasna, (2) *Kanoou-e-Masoudi*, (3) *Jog Bashust*, a Persian translation of the *Yoga Vāśiṣṭha*, (4) five chapters of the *Mahābhārata* and the (5) *Ocean of Knowledge*.

(5) *The Central Library*, Baroda, sent thirty Mss., on palm-leaf and paper, in Sanskrit, Marathi and Gujarati, and two copperplates.

(*a*) (1) The *Mahābhārata* illuminated, (2) *Bhāgavata* illuminated, (3) *Vālmīki-Rāmāyaṇa* in Grantha characters, (4) *Bhagavadgītātātparyanirṇayaṭīkā*, (5) *Saundaryalaharī*, illuminated, (6) *Jambusvāmi Rāsa*, (7) *Sadaya-Vatsacarita*, (8) *Ārādhanā* and (9) *Cauraṅgasandhi*, two Apabhraṁśa works.

(*b*) Two copper-plates.

(6) *Kumar Devendraprasāda Jain* of Arah sent photographic collections of the Jain temples, paintings and manuscripts.

The photos were of temples and caves at Khandagiri, Udayagiri, with the Hathigumpha rock and inscription of Khāravela, Mathura pannel, statues of Jaina Tirthankaras etc.

(7) *The Director of Archaeological Research*, Mysore, sent some plates and a Campū.

(*a*) The Saragur plates of the Gaṅga dynasty, Kudagere plates of the Kadamba dynasty, Kadaba plates of the Rāṣṭrakūta kings etc.

(*b*) A palm-leaf manuscript of *Indirābhyudaya Campū*.

(8) Mr. J. G. Gazdar, a well-known Art-collector of Bombay, sent three cloth-paintings.

(1) XIII century painting on cloth, depicting scenes from the *Rāmāyaṇa*, (2) XIV century painting, depicting Saraswatī on a peacock and (3) XV century painting, depicting the sports of Kṛṣṇa and the Gopis.

(9) *The Government Mss. Library*, Madras, sent one hundred and twenty-four Sanskrit works on different subjects. A few typical ones are given below.

(1) *Ṛgvedavyākhyā* of Udgīthācārya, (2) *Ṛgbhāṣya* of Skandasvāmin, (3) *Ṛgbhāṣya* of Venkaṭamādhava who is quoted by Vidāraṇya and Devarāja, (4) *Vādhūlakalpasūtra-Vyākhyā*, (5) *Āpastambaśulvasūtrabhāṣya*, (6) *Mahābhāṣyavyākhyā* of Bhartṛhari (the photographic copy of the only Ms. of the work in a German Library), (7) *Amoghavṛtti*, a commentry on Śākaṭāyana Sūtras, (8) *Arthaśāstravyākhyā* of Bhaṭṭaswāmin and (9) of Mādhavavarman, (10) *Bṛhaspatisūtra* supposed to be older than the *Arthaśāstra*, (11) *Sāṅkhyasaptatiṭīkā* of Śaṅkarācārya, rare and hitherto unknown, (12) *Pātañjalayogasūtrabhāṣyavivaraṇa* of Śaṅkarācārya, rare and hitherto unknown, (13) *Kaṇādasūtranibandhana* of Harakiṅkara, who quotes Ānandagiri and is

quoted by Vidyāraṇya, (14) *Nyāyasāravyākhyā* of Aparādityamahārāja, one of the best commentaries on Bhāsarvajña's *Nyāyasāra,* (15) *Nītitatvāvirbhāva* of Cidānanda, a Mīmāṁsaka who differs both from Kumārila and Prabhākara, (16) *Nyāyakuliśa* of Vādihaṁsāmbudācārya, uncle and preceptor of Deśikācārya, (17) *Spandanirṇaya* of Kṣemarāja, a pupil of Abhinavagupta, (18) *Traivikrama,* a drama with no characters except the Naṭī and the Sūtradhāra (19) *Bhīmaparākrama* of Śatānandasūnu, an old drama, quoted in the *Śārṅgadharapaddhati,* (20) *Padmaprābhṛtaka* of Śūdraka and (21) *Ubhayābhisārikā,* two rare Bhāṇas, (22) *Dhūrtaviṭasaṁvāda* of Isvaradatta, mentioned by Bhoja, (23) *Daśarūpakavyākhyā* of Bhaṭṭanṛsiṁha, (24) *Aumāpataṁ* an old treatise on music, (25) *Mānasāra* and (26) *Aṁśumadbheda,* two works on agriculture, (27) *Mṛdānītantra,* a work on alchemy, (28) *Candrābharaṇahorā* of Yavanācārya, quoted by great writers on Astrology ; and some Telugu and Malayalam works etc.

(10) *The Government Oriental Library,* Mysore, sent copies in Kannada characters of seven old Mss. of which the following were most important.

(1) *Bṛhadyajurvidhāna* of Kātyāyana, (2) *Vaikhānasa Kalpasūtra,* (3) *Ṛgarthadīpikā* (first Aṣṭaka) by Mādhavācārya, son of Veṅkatarāya, (4) *Āyurvedasūtra* with Yogānanda's commentary.

(11) *The Gurukulāśarma,* Bezwada, sent coins from Nepal, Ratlam, Nizam's State, Travancore etc., of the modern period.

(12) *Dr. Musharraf-ul-Haq* of Dacca brought some rare articles, scrolls and pictures.

(1) An authentic miniature portrait of *Abuzzafar Muhammad Bahadur Shah* II, (2) The *Quran,* a marvellous and artistic manuscript of the holy *Quran,* written on a scroll of paper, 10′ - 5″ × 1″ - 18″, in a most microscopic Nastali character. The whole weight is less than a tola. It is stated that Em-

peror Shah Alam used to keep it in his head-gear. But there is nothing written on the manuscript itself. (3) *Kulliyyat-i-Sadi*, a beautiful and illuminated copy of the complete works of Sadi. It was once preserved in the Imperial Library of Aurangzeb and was probably presented to him in the 31st year of his reign. (4) *Hal-namah*, a Masnavi by Arefi. It is an allegory in which the ball and the bat are personified as types of mystic love. It was transcribed in A. H. 1000 by Khandan, who was the court calligrapher of the Emperor Akbar. (5) *Timurnamah-i-Hatefi*, a Masnavi on the warlike exploits of Timur. A very neatly written copy. Date A. H. 97?. Bears two seals of Muhammad Quli Qutub Shaha and Jamshid Qutub Shah, Kings of Golkonda. (6) *Shahnamah*, the famous epic poem by Firdausi, most profusely illuminated and illustrated. Parts II and III are written in the most excellent Nastaliq, probably in the tenth century A. H. (8) *Jamih-ul-Hakayat*, a famous collection of historical tales and anecdotes by Muhammad Aufi. The oldest and the best copy extant. Profusely illuminated and illustrated with scenes from Natural History in its earlier part, and containing a few good pictures. Dated A. H. 843. (9) *Tuzuq-i-Timuri* of Alfaquihi; this is a continuation of the history of Tamarlane and his ancestors. An extremely rare work. Transcribed for the Emperor Shah Alam in A. H. 1191. (10) *Fursnama*, an illustrared treatise on farriery, translated from Sanskrit by Abdullakhan Bahadur Firoz Jung. This copy was transcribed at Kabul, A. H. 1082, twenty-eight years after the death of Firoz Jung. (11) *Divani-i-Sail* an autograph copy of the poet, written in the most marvellous and excellent running hand. (12) *Bostani-i-Sadi*, the well-known poem, of which this is a most magnificent copy written in the hand of Shah Mahmmud Nashapuri. Dated A. H. 958. Contains a few sketches of pictures. (13) *Diwan-i-Hassan Dihlawi* one of the most complete and clearly written copies of the poems of Hasan. Dated, A. H. 951. (14) *Taswirat-i-Raymala*, an album illuminated by seventeen

beautiful groups of figures of Gouache painting in a variety of bright colours, attitudes and surroundings. Representing conventional symbols of the well-known personifications of Indian pitches. Early 12th century A. H.

(13) *The Indian Museum,* (Archaelogical Section,) Calcutta, sent the follwing.

(a) Bhita seals:—(1) Kāleṣvaraḥ prīyatām, (2) Bhuṭakasa, (3) Sahijitiyenigmaśa, (4) Na (ṁ) di (below Sastika), (5) Śrī Vindhyabedhana Mahārājasya, Maheśvara Mahāsenātirṣṭa Rājjyasya Vṛṣadhvajasya, Gautamiputrasya, (6) Oṃ Śrī Raṇasi(ṁ)haḥ, (7) Sealing with device only, Symbol meaning Kaśpapura or Multan, (8) Seal with perforated handle at top-Inscription-Raga, Symbol-Trisula, (9) Seal-die with perforated top, Inscription Jitaṁmonoratha, Symbol-Star.

(b) Basrah seals:—(1) Āmrātakeśvara, (2) Mahārājādhirāja Śrī Chandragupta, Patni Mahārāja Śrī Govindagupta, Mātā Mahādevī Śrī Dhruvasvāminī, (3) Śrī Vishṇupadasvāmī, (4) Śrī Ghatothkachaguptasya, (5) & (6) Yuvarājapādīya Kumārāmātyādhikaraṇa.

(14) The *Karnatak Itihāsa Maṇḍala*, Dharwar, sent copper-plates, Mss. etc. of which the following were important.

(1) Copperplate of the Kadamba age, (2) Copperplate of the Vijayanagar age, (3) *Cāmuṇḍarāyapurāṇa*, (4-5) Two beautifnl carving specimens on Tāḍāvali, (6) *Harivaṃśapurāṇā*, a Jain work by Maṅgarasa.

(15) *Shrimant Balasaheb Pant Pratinidhi* sent some exhibits, of which the following were intersting both from the artistic and the calligraphic points of view.

(1) A manuscript of the *Saptaśatī*, beautifully written in golden ink and profusely illuminated, believed at least to be a couple of centuries old. (2) A manuscript of of the *Quran*, with Arabic and Persian text written simultaneously one below the

other, nearly four hundred years old, bought at Bijapur at a cost of Rs. 400/-.

(16) The *Patna museum* lent (*a*) prehistoric antiquities, and (*b*) historic antiquities.

(*a*) Prehistoric antiquities; a scraper, a borer, arrow- and spearheads, a knife, a flake, axes, a bone-hammer, battle-axe with double head, bracelets, a bronze-bell etc;

(*b*) Silver punch-marked coins of the Maurya period, Ksatrapa and temple-seals, Gupta seals etc.

(17) The *Provincial Museum*, Lucknow, sent several articles like (*a*) castes of ancient statues and architectural decorations, coins, seals and edicts, (*b*) estampages of certain inscriptions and (*c*) photographs.

(*a*) Among the casts of coins were those of (1) Vima Kadphises, (2) Kaniṣka, (3) Huviṣka, (4) Samudragupta, (5) Vāsudeva, (6) Kumārapāla etc., (7) golden coins of Kumāragupta, Pauragupta, Akbar, Jahangir etc.

(*b*) Among the estampages were those of the Mukhari Inscription, and the Kudarkot Inscription etc.

(*c*) The photos were of Jain, Buddhist and Hindu sculptures.

(18) The *Sardar Museum*, Jodhpur, sent (*a*) gold, silver and copper coins, (*b*) old paintings and (*c*) reprints of Inscriptions.

(*a*) Gold coins of Vāsudeva, Huviṣka, Samudragupta, Kumāragupta; silver coins of Azas, Menander, Kumāragupta, Jahangir etc; copper coins of Diomedes, Mahīpāla, Somaladevi etc.

(*b*) Paintings about the history of the Kṣatrapa, Gupta, Paramāra, Kalacūri, Pāla, Sen and other dynasties.

(*c*) Reprints of Inscriptions of Udayāditya, Pratāpasimha etc.

(19) *Mr. V. P. Vaidya*, B. A., Bar-at-Law, J. P., lent Mss. and gold, silver and punch-marked coins.

(*a*) Mss. *Vīrasiṁhāvalokana*, *Ātreyasaṃhitā* and an illuminated copy of the *Bhagavadgītā*.

(*b*) Old coins, (1) Gold mohur (Mataji) 1, (2) Silver coins of the last century, 13, (3) Punchmarked coins.

(20) *The Watson Museum of Antiquities*, Rajkot, sent (*a*) four copperplates, (*b*) Mss. and (*c*) seventy-six coins.

(*a*) Copperplates of Dharasena I, Gupta Saṃvat 207; of Dharaṇivarāha of the Chavda dynasty, Śaka 639.

(*b*) A Ms. of *Māṇḍalika Kāvya*, an epic on the last Yādava King of Junagad, Ra Māṇḍalika, who was defeated by Sultan Mahmud in 1472.

(*c*) Gold coins of Antoninus, Augustus; silver coins of the Sassanian Gadheya, Rudrasena son of Rudradāman, Nahapāna, Caṣṭana, Rudradāman, Saṅghadāman etc.

APPENDIX C.

Donations from Governments, States and Private Individuals.

Indian and Provincial Governments.

(1)	Government of Bengal	... ...	1500
(2)	" Bombay	... ...	1500
(3)	" Burma	... ...	500
(4)	" India	... ...	1000
(5)	" Madras	... ...	1000
(6)	" United Provinces	...	2000

Native States.

(7)	" H. H. the Gaekwad of Baroda	... ...	1000
(8)	" Bhavnagar State	...	500
(9)	" Dhrangdhra State	...	500
(10)	" H. H. the Holkar of Indore		500
(11)	" Junagadh State	...	500
(12)	" H. E. H. the Nizam of Hyderabad	... ...	1000
(13)	" H. H. the Maharaja of Mysore	... ...	1000
(14)	" The Chief of Aundh	...	100
(15)	" The Chief of Jamkhandi		100
(16)	" The Thakore Saheb of Limbdi	... ...	250
(17)	" The Chief of Sangli	...	150
(18)	" The Yuvaraja of Bhor	...	100

Private Individuals.

(19)	The Hon'ble Mr. J. G. Covernton M. A., C. I. E	... ...	50
(20)	The Hon'ble Mr. Keshavrao of Hyderabad	... ...	100
(21)	Mr. H. A. Shah B. A.	... ...	100
(22)	Sir D. J. Tata	... ...	100
(23)	Principal J. R. Tullu B. A.	... ...	50
(24)	Mr. V. P. Vaidya, B. A., BAR-AT-LAW J. P.	... ...	100

Appendix D.

Statement of Accounts of the Conference, as passed at a meeting of the Working Committee on 27th June 1920.

No.	Particulars of Income.	Amount.	No.	Particulars of Expenditure.	Amount.
			1	Printing charges	1449 2 0
1	Donations from Governments Native States and Private Individuals	13870 0 0	2	Motors, Gharries and Coolie charges	1309 0 9
			3	Refreshments and Boarding charges of delegates and volunteers	2110 2 3
2	Delegates fees	1355 0 0	4	Labour and other charges for clearing the premises of the Institute	894 4 3
3	Visitors fees	131 0 0	5	Decoration of the Institute and premises	813 5 6
4	Miscellaneous	200 8 6	6	Tent-hire, furniture &c. ...	735 7 0
	Total...	15556 8 6	7	Exhibition charges ...	1031 0 0
			8	Post and telegram charges...	161 15 0
			9	Stationery	273 1 9
			10	Lighting	147 10 0
	Details of Balance		11	Miscellaneous	617 2 6
	With the Bank ...	5819 14 9		Total Expenditure...	9542 3 0
	With Dr. Gune ...	194 6 9		Balance...	6014 5 6
	Total...	6014 5 6		Total...	15556 8 6

(Sd.) K. G. Joshi,
Hon. Treasurer.

CONTENTS OF THE *SUMMARIES* OF PAPERS.

		PAGES.
I.—VEDIC		i–xix
Age of the Brāhmaṇas. *By* B. V. Kameswar Aiyar	i–viii	
Study of the Vedas. *By* Gauridatta Sastree	viii	
Nighaṇṭu is not the Work of the Author of the Nirukta. *By* R. D. Karmarkar ...	ix	
Education in the Brāhmaṇas and Upaniṣads. *By* Radhakumud Mookerji	ix	
Asurasya Māyā in the Ṛgveda. *By* V. K. Rajwade ...	ix	
The Mention of the MBh. in the Āśvalāyana Gṛhya Sūtra. *By* N. B. Utgikar	xiv	
Gotra and Pravara. *By* C. V. Vaidya ...	xv	
The Nirukta and the Nighaṇṭu: their mutual Relation. *By* Siddheshwara Varma ...	xvi	
Ārya and Dasyu—A Chapter in Social History. *By* S. V. Viswanatha	xvi	
The Philological Argument for an Upper Limit to the Age of the Ṛgveda. *By* A. C. Woolner ...	xvii	
II.—AVESTA		xxi–xxviii
Sanskritised Passages from the Gāthās. *By* Shams-ul-Ulama Dastur Kaikobad A. Nosherwan ...	xxi	
Airyana Vaejo, the Cradle of the Aryans; the Mazainya Daeva, the Devas of Mazandran or Brahmanical Devas. *By* J. D. Nadirshah ...	xxi	
Modern Science in Ancient Iran. *By* M. B. Pithawalla	xxii	
The Avestan Archangels and Sanskrit Deities, a Comparison. *By* A. K. Vesavevala ...	xxv	
III.—PALI AND BUDDHISM		xxix–xxxvii
Buddhist Philosophy of Change. *By* Maung Shwe Zan Aung	xxix	
The Vinaya Literature of the Buddhists. *By* N. K. Bhagwat	xxix	
The Burning of Mithila. *By* C. V. Rajwade ...	xxx	
Buddhist Philosophy (in Pali). *By* Pandit Widurupolu Piyatissa	xxxi	

Nāgārjuna—the earliest Writer of the Renaissance Period. *By* Satis Chandra Vidyabhusana ... xxxiv

IV.—PHILOLOGY AND PRAKRITS ... ... xxxix-lxix

The Phonogenesis of the wide E and O in Gujarati. *By* N. B. Divatia xxxix

Apabhraṃśa Literature and its Importance to Philology. *By* P. D. Gune xlv

The Dialects of the Burmese. *By* L. F. Taylor ... xlvii

The Importance of Philology for modern Languages. *By* J. M. Unwala... xlviii

V.—CLASSICAL LITERATURE ... ... li-lxiv

Śakuntalā—an Allegory. *By* N. B. Adhikari ... li

The Relation of Śūdraka's Mṛcchakaṭika to the Cārudatta of Bhāsa. *By* S. K. Belvalkar ... li

Kālidāsa and the Gupta Kings. *By* H. B. Bhide ... lii

Psychological Study of Kālidāsa's Upamās. *By* P. K. Gode lii

Indian Aesthetics. *By* M. Hiriyanna ... lv

Kālidāsa and Music. *By* Sardar G. N. Mujumdar ... lviii

Kālidāsa and Candragupta II. *By* S. Ray ... lviii

Kauṭilya and Kālidāsa. *By* H. A. Shah ... lix

The Text of the Śakuntalā. *By* B. K. Thakore ... lx

VI.—PERSIAN AND ARABIC ... ... lxv-lxix

Okhāharaṇa in the Shahnameh. *By* P. B. Desai ... lxv

King Akbar and the Persian Translations from Sanskrit. *By* J. J. Modi lxv

The unknown Yā in Persian. *By* Abdul Kadar Shaikh Sarfraz lxix

VII.—DRAVIDIAN ... ... lxxi-lxxxiv

Dravidian Tense-suffixes *By* R. Swaminath Aiyar lxxi

Old Telugu Literature. *By* K. Sitaramayya ... lxxviii

Telugu Language and Literature. *By* G. Somanna ... lxxx

The Pronunciation of the hard *r* in Dravidian Languages. *By* C. P. Venkatarama Aiyar ... lxxxi

VIII.—PHILOSOPHY ... ... lxxxv-ci

Vaiṣṇavism in South India before Rāmānuja. *By* S. Krishnaswami Aiyangar lxxxv

Fallacies in Indian Logic. *By* G. C. Bhate ... lxxxvii

A Note on Śiva and Phallic Worship. *By* G. K. Chandorkar lxxxviii

Trividham Anumānam, or a Study in Nyāyā Sūtra I i 5. *By* A. B. Dhruva lxxxviii

व्याकरणे वेदान्ते च ग्रन्थकाराणामनवधानाभासाः तत्प्रसक्तं चान्यत्। गजेन्द्रगडकरोपाह्वबालाचार्याणाम्। xc

The Yogīśvara Yājñavalkya, his Life and Philosophy, Chronology and Contemporaries. *By* P. B. Joshi xci

The Relation of the Bhagavadgītā and the Bādarāyaṇa Sūtras. *By* R. D. Karmarkar ... xcv

The Springs of Action in Hindu Ethics. *By* Susil Kumar Maitra xcv

Śaṅkara on Buddha. *By* Panduranga Sharma ... xcvii

The Pada and Vākya Bhāṣyas of Kenopaniṣad. *By* Sridharshastri Pathak xcviii

पूर्वमीमांसायाः सूत्रावशेषस्य विवरणे विप्रतिपत्तिः। फडके शास्त्रिणाम् ... xcix

The Antiquity of the Bhagavadgītā. *By* S. V. Venkateshwar. c

Logic of Śaṅkarācārya and Aristotle. *By* R. Zimmermann c

IX.—ARCHAEOLOGY ... ... ciii–cix

Ancient Indian Architecture. *By* M. A. Ananthalwar ciii

Śanskrit Mss., their Search and Preservation. *By* Ananta Krishna Shastri civ

The Rock-cut Temples in Southern India. *By* J. Dubreuil cv

The early Kalacuris and the Alphabet of their Copperplate-grants. *By* Y. R. Gupte... ... cv

The Cave and Brāhmī Inscriptions of Southern India. *By* H. Krishnashastri cvi

The Jain Manuscript-Bhandar at Patan—A final word on their Search. *By* J. S. Kudalkar ... cvii

Note on some Valabhi Coins. *By* Geo. P. Taylor ... cix

X.—ANCIENT HISTORY ... ... cxi–cxxxviii

The basic Blunder in the Reconstruction of Indian Chronology by Orientalists, or the Greek Synchronisms reviewed. *By* M. K. Acharya ... cxi

A Peep into Mediaeval Dekkan. *By* A. V. Venkataramayyar cxv

The Karnatak and its Place in Indian History. *By* V. B. Alur cxvi

India as known to the Ancient World. *By* Gauranganath Banerji cxvii

The Date of Cakradhara the Mānabhāva. *By* G. K. Chandorkar cxix

Date of the Coronation of Mahāpadma. *By* Harit Krishna Deb cxx

Identification of Kings of the Āryāvarta defeated by Samudragupta. *By* K. N. Dikshit ... cxxiv

The Date of Haribhadrasūri. *By* Muni Jinavijayaji.. cxxiv

Rāvaṇa's Laṅkā discovered. *By* Sirdar M. V. Kibe... cxxvi

The early History of the Gurjaras. *By* R. C. Majumdar... cxxvii

The Ancient Germans, their Manners etc. *By* J. J. Modi cxxviii

A Chapter from our early Economic Geography. *By* Radhakamal Mookerji cxxxiii

Some Aspects of the Problem of the Gupta Era. *By* K. B. Pathak cxxxiv

Notes on the early Sea-borne Commerce of Western India. *By* H. G. Rawlinson cxxxiv

Jāṅgaladeśa and its Capital Ahicchatrapura. *By* Har Bilas Sarda cxxxv

Gupta Era. *By* H. A. Shah cxxxvii

XI.—ETHNOLOGY AND FOLKLORE ... ... cxxxix–clii

Modern Conscience towards Racial Problems. *By* P. N. Daroowalla cxxxix

Note on the Dissolution of Castes and Formation of new ones. *By* S. V. Ketkar ... ... exi

Marriage Customs in Western and Eastern Nations. *By* S. S. Mehta cxlii

A brief History of the Survey of the Ethnography of Bombay. *By* J. J. Modi cxlix

Totemism, Exogamy and Endogamy among the Aryan and Dravidian Hindus. *By* J. A. Saldanha ... cli

XII.—TECHNICAL SCIENCES ... ... cliii–clx

The constructive Geometry of Altars in the Vedas. *By* R. N. Apte cliiil

Nakṣatras and Precession. *By* G. R. Kaye ... cliv

Astronomical Phenomena in fixing the chronological Periods in Indian History. *By* V. B. Ketkar cliv

Rasa Vidyā or Alchemy in Ancient India. *By* R. V. Patwardhan clv

A short Note on the Use of Metres by Sanskrit Poets. *By* A. S. Bhandarkar clvi

Early History of Music. *By* E. Clements ... clvii

Principles of Melodic Classification in ancient Indian Music. *By* V. G. Paranjpe clviii

XIII.—GENERAL. ... ... clxi-clxxii

Sanskrit and its Claims upon our Attention. *By* G. S. Apte clxi

Old Gujarāti Poets. *By* D. D. Dave clxii

Note on the Ancient History and Geography of the Konkan. *By* P. V. Kane clxii

कालिदासस्य काव्यानि । कृष्णमाचार्याणाम् clxvi

State Interference in Ancient Indian Industries. *By* Narendra Nath Law clxvi

Old Shastric Learning. *By* M. A. Narayan Shastri... clxvii

Academical Study of Sanskrit. *By* P. V. Narsingrao. clxvii

Some views on the Problem of Sea-voyage. *By* C. Venkataramanaiyar clxxi

Funeral Place of Poet Kālidāsa—a Querry. *By* Satis Chandra Vidyabhusana clxxii

* * * *

The Indo-aryan Style of Architecture. *By* Y.R. Gupte clxxiii

Viśeṣādvaita. *By* Virupaksha Wodeyar ... clxxviii

Origin of the Indian Alphabet. *By* D. R. Bhandarkar clxxix

Bhartṛhari in Ibn Muquaffa. *By* G. K. Nariman ... clxxxi

I.—Vedic.

Age of the Brāhmaṇas. Part I. *By* B. V. KAMESVARA AIYAR.

In the second stratum of Vedic literature (the *Yajus* and the *Atharva* Saṁhitās and the several Brāhmaṇas) we meet with lists of the nakṣatras of the Zodiac (27 or sometimes 28). That these nakṣatras marked the diurnal passage of the moon in the course of its heavenly circuit or revolution is plainly indicated by expressions like 'Aghāsu' (Ṛv. X 85, 13) 'Kṛttikāsu' (Taitt Br. I 1), which mean the days on which the moon is in conjunction with these asterisms. Though this nakṣatra Zodiac is primarily connected with the moon's path, it was also known to make the annual course of the Sun.

Now a Zodiac like this should have a starting point. The Brāhmaṇas state that the Kṛttikās are the first of these Zodiac asterisms, the first place being assigned to them in the several lists. Why were the Kṛttikās chosen as the starting point of this asterismal Zodiac?

It was thought by Weber and some other western Sanskritists that the same reason, which led to the recognition of Aśvinī as the first asterism in post-Greek Indian astronomy, might have led to the recognition of the Kṛttikās as the first in the period of the Brāhmaṇas. It is well-known that Aśvinī came to have the first place among the asterisms in the post-Greek system because it (or more accurately, the segment denoted by it) marked the commencement of the vernal equinox, when a solar calendar was adopted under Alexandrian influence (about the 4th or the 5th century A. D.). Similarly it was thought that the Brāhmaṇas assigned the first place to the Kṛttikās because at that time the Kṛttikās were observed to mark the vernal equinox.

There are serious difficulties in accepting the reason for the priority of the Kṛttikās. The Brāhmaṇas do not anywhere show a knowledge of the equinoxes or of a year commencing with the vernal equinox. Again it is the moon

that is generally connected with the nakṣatras. The analogy of Aśvinyādi cannot therefore apply.

Why then did the Brāhmaṇas give the first place to the Kṛttikās? Dr. Fleet suggested (and Prof. A. B. Keith welcomed the suggestion) that the priority of Kṛttikās was due solely to ritualistic considerations. Dr. Whitney held that the Brahmavādins should have borrowed the scheme with the Kṛttikās at its head from the Babylonians.

I have tried to show that the nakṣatra scheme of Zodiac could not have been borrowed from Babylon for the simple reason that there is *nothing in common* between the Indian lunar Zodiac and the Babylonian solar Zodiac. You cannot borrow from a country what you cannot find there. It is for those who postulate a borrowal to show that the elements of the Indian Zodiac and the Brahmanic calendar are also found in the cuneiform literature of Babylon belonging to about 2300 B. C. This has not been so far attempted to be proved.

The reason why the first place is given to the Kṛttikās in the Vedic texts is to be found in the Vedic texts themselves. The Zodiac line does not run from east to west direct but lies partly to the north of the east point and partly to the south of it. One half of the asterisms of the Zodiac lies in the northern hemisphere of the heavens and the other half in the southern hemisphere. Now in the Brāhmaṇas as well as post-Vedic literature, the Deva-loka is located in the northern part of the heavens and the Yama-loka is located in the south. Therefore it is natural to find in the Brāhmaṇas that the asterisms in the northern portion of the Zodiac are treated as Deva-nakṣatras and those in the southern portion were known as Yama-nakṣatras. The asterisms in the northern half will revolve in the northern hemisphere to the south of the Deva-loka and those in the southern half will revolve to the north of the Yama-loka. This is exactly what is stated in Taittirīya Brāhmaṇa I 5,2. This is how the passage should be naturally understood and how it has been understood both by Sāyaṇa and Bhaṭṭa Bhāskara. Now the Kṛttikās are stated to be the first of the Deva-nakṣatras. This should and could be only with reference

to the order of the Moon's passage in the heavens. The passage would thus indirectly mean that the Kṛttikās marked the last. Another Brāhmaṇa passage Śat. Br. II 1,3 says the same thing directly—that Kṛttikās do not swerve from the last point while the other nakṣatras of the Zodiac lie either to the north or the south of this point. It has been attempted to show that these two passages have been correctly interpreted in this manner both according to tradition and according to the obvious rules of interpretation.

A third passage, though in a presumably supplementary portion of an Upaniṣad, Mait. Up. VI 14, also states that the Sun turns south from the Maghās, which would correspond to the Kṛttikās at the east point. Thus three Vedic passages are found to state directly or indirectly that the Kṛttikās were observed to be at the east-point at the time of the Brāhmaṇas. The Brāhmaṇas had to determine, for ritualistic purposes, the cardinal and the intermediate points of direction. It may be that the determination may not have been mathematically accurate. At any rate the Brāhmaṇas talk of the Sun turning north or south and the day on which the Sun so turned could be determined within an error of say four days. An error of 4 or 5 degrees in the determination of the cardinal points would not materially affect the accuracy of long periods like those we are dealing with.

It is true that the Brāhmaṇas do not appear to have been acquainted with, or recognised as important, the equinoxes. Nor is there any reference to a year commencing with the vernal equinox. But this can not prevent them from dividing their Zodiac into a northern and a southern half and locating the starting point of the asterisms at the east point. You can not say that simply because there is no reference to the equinoxes in the Brāhmaṇas, the theologians of this period could not have observed or noted that a certain asterism in their Zodiac was at the last point and others were to the north or the south of this.

Leaving a margin of 3 or 4 centuries for errors of observation, it may be safely concluded that the Brahmanic passages that locate the Kṛttikās at the last indicate

approximately that they were composed about 2,000 B. C.—an antiquity which scholars like Bühler (and even Whitney) considered necessary for the development of the different *strata* of Vedic literature.

Part II. Section I. The month and the year in the Brāhmaṇas.

(1) The month in general use at the time of the Brāhmaṇas was lunar and was named after the nakṣatra in or near which the moon became full. This was reckoned as 30 days, as the amāvāsyā (or pūrṇimā) occurred on the 30th day after the previous amāvāsyā (or pūrṇimā).

(2) The month began from the day after the amāvāsyā and ended with the next amāvāsyā. The term 'amāvāsyā' denoted not 'the moment of new moon' or a *tithi* or that part of the amāvāsyā tithi which was considered fit for the religious rites, (all this was to come later) but the civil day on which the moon was entirely invisible. The term 'new moon' is a misnomer as applied to amāvāsyā; the term in the English language denotes only the day *after* the amāvāsyā—the day when the moon becomes first visible after its total disappearance on the amāvāsyā. The misuse is perhaps partly responsible for the undilutedly novel theory of 'amādi.'

The evidence for the amānta and against the pūrṇimānta is:

(*a*) Ṛv. X 85,18, which states that the moon after completing the month is born again.

(*b*) Taitt. Br. III 10, 1, where ritualistic names are given to the days *i. e.* of the month in their calendaric order.

(*c*) The frequent use of the expressions "pūrva pakṣa" and "apara pakṣa" in all the vedic Śākhās.

(*d*) Kauṣ. Br. XIX 3 which states that an amāvāsyā closes the last day of the year and that the sun turns north on the next day; and Kauṣ. Br. I 3 which states that an amāvāsyā is in the middle of a ṛtu.

(*e*) Śat. Br. XI 1, 1 &c. which says that the amāvāsyā is the gate opening out into the new year and that

the amāvāsyā of Vaiśākha coincides with Rohiṇī (of course in the *prāyikārtha*) which can only be if the amāvāsyā of the month came *after* the pūrṇimā.

(*f*) Taitt. Br. I 8,10,35 which states the amāvāsyā ends a month whereas the paurṇamāsī ends only a half-month.

(3) Sāyaṇa and Mādhava are of opinion that the pūrṇimānta month is also contemplated in some Vedic texts. Two Vedic texts are adduced in evidence in the Kālamādhava. One of them that the term 'Kṛṣṇa-pakṣa' (itself a term of the post-Vedic period) is used before the term 'Śuklapakṣa' in an unidentifiable passage of the Ātharvaṇikas may be dismissed as not worthy of any serious consideration. The other Vedic text does state that some Brahmavādins complete the 'month' with the paurṇamāsī. But analogy and the context require that the word 'month' (māsa) should be here understood as denoting a Satra-month (known later as Sāvana month), the commencement and the end of which were determined not by the calendar month in use but by the opening Dīkṣā day for the Satra.

(4) There were 12 lunar months in the year which was also lunar. Once in every two years or three years, as occasion demanded, an additional or thirteenth month was added to the year, to adjust lunar years to the movement of the seasons (which are regulated by the position of the sun). No elaborate calculations were needed for purposes of such adjustment. If the Brahmavādins went on inserting an additional month *only when* the difference between the lunar and the solar time needed such insertion, the adjustment would become approximately right and would become almost perfect in an exeligmos of 160 years.

(5) In popular language, the year was spoken of as consisting of 360 days from the Ṛgvedic period; but as there is no natural phenomenon (like the amāvāsyā or the sun's turning north or south) to mark the commencement or the close of such a year, this year could never have been employed for practical use. In the Saṁvatsara-Satra (an institution as old as some of the oldest parts of the Ṛgveda)

it was possible to employ this year of 360 days, as the commencement of the Satra depended on various considerations. This year was therefore known later as Sāvana year and the word 'māsa' was in connection with this, used for a group of 5 six-day periods without any reference to the beginning or the end of the calendar month then in vogue. For purposes of this thesis, the point worth remembering is that in the time of the Brāhmaṇās the calendar month was exclusively amānta, the pūrnimā which gave the name to the month occurring on the fifteenth day of the month and the amāvāsyā occurring on the last or the thirtieth day of the month and closing it.

Part II, Section II. Ayanas and Ṛtus.

The only passage in the Brāhmaṇas for determining the position of the winter solstice, as then obtained, is Kauṣ. Br. XIX 3 where it is said to coincide with Māgha amāvāsyā. Dr. Thibaut, either on the authority of Vināyaka and Ānartīya or by some ratiocinatory process which is beyond my comprehension, understands Māgha amāvāsyā to mean that which fell 15 days before the full moon in Maghās. This would correspond to the position of the winter solstice in the Vedāṅga Jyotiṣa. Thus both would tally and support each other. The epoch of the Vedāṅga, from other (more or less accurate) date furnished in the work, would approximately point to 1000-1200 B. C. The age of the Brāhmaṇas also may be set down to 1000-1200 B. C.

But the Vedāṅga Jyotiṣa says that the season of Śiśira began with the winter solstice. This is not true to the seasonal changes of India. The view of the Brāhmaṇas is more correct, for the Brāhmaṇas state that the Phālguna full moon is the *mukha* or the first day of the year. This should be taken to mean that the Phālguna full moon was the first day of Spring. If so understood it would mean that spring commenced 45 days after the winter solstice; this would fit in with the course of seasons as they obtain in Northern India.

This is Dr. Thibaut's theory. I have tried to show that this theory is in conflict with several texts from the Brāhmaṇas. In the first place, the months in the Brāhmaṇas are

exclusively amānta; or at any rate the evidence for a concurrent pūrṇimānta is so slight and of doubtful validity that in the absence of sufficiently convincing reasons to the contrary, which neither the scholiasts Vināyaka and Ānartīya, nor Dr. Thibaut has given, Māgha amāvāsyā in the Kauṣ. Br. XIX 3 must be understood in the amānta sense; if this is done, the year would commence on Phālguna Śukla-Pratipad from the winter solstice. The Brāhmaṇas also show that the first season of the year was Vasanta and therefore Spring would, conventionally, begin with Phālguna Śukla! What then is the meaning of the statement in the Brāhmaṇas that Phālguna full moon (*i. e.* Phālguna 15) was the first day of the year? The very passage (Śat. Br. VI 2, 2) that states that the Phālguna full moon is the first day of the year, explains in the same context that Phālguna pūrṇimā is so called because it is the first of the three important days (*parvans*) of the first month of the year and that the other two *parvans*, the eighth day after the full moon and the fifteenth day after the full moon are also the first days of the year in the sense that they are the first *parvans* of their kind in the year. Moreover another Brāhmaṇa passage Śat. Br. II 1, 3 distinctly states that Vasanta, Grīṣma and Varṣā are the three seasons of Uttarāyaṇa and Śarad, Hemanta and Śiśira are the three seasons of Dakṣiṇāyana. It might be objected that this arrangement of the seasons is incorrect and would not accord with the course of the seasons in India. I have tried to show that this arrangement might be correct enough as a convention, that a convention which tries to express the seasons in terms of the lunar reckoning can be only approximately correct with a margin of a fortnight, that Śarad in the Brāhmaṇas, (unlike the notion that has crept into use after the Vedāṅga epoch) denoted the second and wetter half in the four-monthly period of rains, Varṣā denoting the first half which might have included the heavy showers that often preceded the regular south-west monsoon by a fortnight, that having regard to the fact that Indian meteorology is still empirical in spite of recorded statistics, the Vedic texts which showed that Vasanta began from the winter solstice and Śarad from the summer solstice need not be absurdly untenable as a convention

Dr. Thibaut has considered only two points, one about Māgha amāvāsyā and the other about Phālguna full moon and his theory on this interpretation of these two terms and supported it by meteorological considerations. I have tried to show that there are Brahmanic texts which are in conflict with his interpretation of either term and that the correct procedure would be to understand from the Brāhmaṇas what their seasonal conventions were and see how far they might be reconciled with the seasonal changes in India instead of trying to deduce, without any reference to these texts, what the Brāhmanic conventions *should have been* from the complex and uncertain data afforded by current meteorclogy.

If the position I have tried to establish be conceded, the conclusion would be that the sun turned northwards on Phālguna Śukla-pratipad, that it is earlier *by one lunar month* than the Māgha Śukla-pratipad which coincides with the winter solstice according to the Vedāṅga Jyotiṣa, that therefore the Brāhmaṇas point to the coincidence of the summer solstice in the nakṣatra Maghās, which correspond to the vernal equinox in the Kṛttikās, that this would tally with the date derived from the statements about the positions of the Kṛttikās in the Zodiac of the Brāhmaṇa period, and that the evidence of both these sets of astronomical data would give for the Brāhmaṇas a date which may be approximately fixed between 2000-2300 B. C.

Study of the Vedas. *By* GAURIDATTA SASTREE.

वेदशब्दनिरुक्तिपूर्वकं तत्पर्यायशब्दानां निरुक्तिः । वेदस्य लक्षणं तत्प्रमाणानि च । वेदानामर्थपरिज्ञानाय षडङ्गादीन्युपयुक्तानि तेषाञ्च निरुक्तिपूर्वकं तदर्थनिरूपणं च । वेदानां धर्मब्रह्मावबोधनरूपं प्रयोजनं प्रदर्शितम् अनन्यलभ्यत्वात्तस्य । वेदाः केन प्रकाशिता इति कथनम् । अर्थज्ञानपूर्वकं वेदानां नित्यमध्ययनम् । अर्थाभिज्ञप्रशंसा अर्थानभिज्ञस्य निन्दा । वेदाननधीयानस्य भाग्यहानिः ऋत्विक्चतुष्टयप्रदर्शनेन वेदचतुष्टयनिरूपणञ्च । सर्वसारभूतौ द्वौ मन्त्रौ लोककल्याणाय पर्यन्ते निर्दिष्टौ । " समानो मन्त्रः समितिः समानी " इत्यादि ।

The Nighaṇṭu is not the Work of the Author of the Nirukta. *By* R. D. KARMARKAR.

In addition to the points noticed by Durga and Roth in this connection, the essay brings forward further evidence to prove that the author of the Nighaṇṭu is different from that of the Nirukta. The following words from the Nighaṇṭu and Yāska's explanation thereon are referred to. Taḷit, Ākṣāṇaḥ, Āpānaḥ, Viyātaḥ, Ākhaṇḍala, Vavakṣitha, Vivakṣase, Vicarṣaṇiḥ, Viśvacarṣaṇiḥ, Mehanā, Śipre, Tūtumākṛṣe, Śvātram, Dyumna, Tūrnāśa, Kṛtti, Śamba, Śruṣṭī, Andha, Varāha, Svasarāṇi, Śaryā, Sina, Vayunam.

Evidence is also brought forward to show that the Nighaṇṭu is not the work of a single author.

Education in the Brāhmaṇas and Upaniṣads. *By* RADHAKUMUD MOOKERJI.

The paper deals with the types of the educational institutions indicated in the Upaniṣads, so as to show the precise character of the educational system and machinery evolved in ancient India for the spread of her learning and culture through the different and distant parts of the country in those remote, pre-mechanical ages. A brief reference has been incidentally made to the question: How far was Sanskrit a spoken language during the period or a mediun of instruction and debate in learned societies ?

Asurasya Māyā in Ṛgveda. *By* V. K. RAJWADE.

The word *asura* occurs about 105 times in the Ṛgveda. In about 90 instances it is used in a good sense, while the instances in which it is used in the sense of 'enemies' of Devas are only 1/7th of the whole. It means 'powerful, strong', and is applied to individual gods and gods in general and is only generic in character. In some cases, however, it is significant and purposeful as in those of Mitra, Varuṇa and Indra. When used about Indra, it shows physical strength, while in the case of Mitra and especially Varuṇa, it shows moral, punitive

strength. This has led some to believe that Varuṇa really is the great Asura, the prototype of Ahura Mazdah. I think, however, that such a conclusion is not warranted, as along with other gods he is *āsura* or *asuraputra*. In enforcing the moral law, he enforces the *Māyā*, *i. e.* the miraculous power, the thaumaturgy of *asura*. The Devas are called *divasputrāsaḥ*, *mahasputrāsaḥ*, *asurasya vīrāḥ*. In a list of Assyrian Gods published by Vincent Scheil, is mentioned Assar Mazaash which, the writer of the article on Ormazd in the Encyclopædia of Religion and Ethics thinks, is nothing but Ahura Mazdah of the Zoroastrians (Vol. 9 p. 568). I think the name is a mispronunciation of *asura mahas*. The words do not occur as a compound in the Ṛgveda which shows that they were compounded by the copyists. If the poets in the Ṛgveda had borrowed the name from Chaldea, as the Indian Aryans are said to have borrowed astronomy from that country, they would have retained the compound name. Whoever was the borrower, it is clear that the Chaldeans, the Indian Aryans and Zoroastrians were once neighbours. Perhaps they had a common religion and common gods, among whom Asura was the greatest. There happened a cleavage, however, between the Indian Aryans and the Zoroastrians at some unknown period of the world's history, of which the causes are unknown. Perhaps it was religious differences. Perhaps the Indian Aryans came to regard Indra as supreme deity while their neighbours clung tenaciously to Asura. Anyhow they began to revile each other's gods. The Zoroastrians degraded Indra into a minor, insignificant deity or as I think, transformed him into Angra Mainyu, the protagonist of Ahura Mazdah. The Devas, the followers of Indra, had to share the odium that came to be attached to the name of Indra. There commenced a campaign of mutual vilification and misrepresentation. Indra, who was turned into Satan, became an inveterate foe of Ahura and is called *asuraghna* in the Ṛgveda. The Zoroastrians exalted certain names such as *asura*, *manyu*, *aśa*, *gāthā* and degraded others. The Indian Aryans too adopted the same method. *Kavi*, which is used in an evil sense in the Avesta, was prefixed to the name of Devas and conveyed a good sense. The two races adopted

contrary customs with regard to burial, shaving and marriage.

But before the cleavage, all the gods were the sons of *asura* and were called *asura* patronymically. The name conveyed a good sense. *Asurya* meant strength, and *asuratva* was used in the sense of *Māyā*, thaumaturgy. All natural phenomena were miracles and the work of *asura*. Kings were complimented by prefixing *asura* to their names, or by use of the epithet instead of the names. This same supreme deity was perhaps called by various names such as *dyau*, *mahas* and *amṛta*, and the gods were *divasputrāsaḥ*, *mahasputrāsaḥ*, and *amṛtasya putrāḥ*. *Dyau* is Greek Zeus, *mahas* is Zoroastrian Mazdah, *asura-mahas* Chaldean Assar Mazaash. Whichever party or parties were the borrowers, they lived near one another. Greeks, Indian Aryans, Zoroastrians and Chaldeans were once neighbours. What was the region they occupied? Dr. Sir R. G. Bhandarkar says it was the northern portion of the plain between the Euphrates and the Tigris or Mesopotamia. If the Indian Aryans were borrowers, they must have had Greeks on one side, Chaldeans on another and Zoroastrians on the third, and when the cleavage came, they must have left the Zoroastrians in the rear and pushed on to the land of the five rivers.

Dr. Bhandarkar thinks that just as the *dasyus* were the aborigines of India, the *asuras* were aborigines of some other country, and as aboriginal races both were regarded with an evil eye by the Indian Aryans. It is my humble opinion that the *asuras* were the cousins of the Indian Aryans. In the *Śat. Br.* (13, 8, 2, 1) we have *devāścāsurāścobhaye prājāpatyā asmin lokespardhanta, te devā asurān sapatnān bhrātṛvyānasmāllokādanudanta.* The *dasyus* were inhabitants or people of *daiŋhu* (Av. = province or country). This *daiŋhu* was perhaps the country of the Zoroastrians. Misrepresentation or vilification followed in the wake of their enmity. Originally of one stock, they quarrelled and parted irreconcilably. Worshippers of *asura* or Ahur, the Zoroastrians were nicknamed Asuras. Their speech is set down as barbarian, for the Avesta seems to be Sanskrit mispronounced. *Asura* is Ahur, *ahi* is Azi, *manyu* is Mainyu, the genetive termination

sya is hya, *Indra* is Indhra or Angra, *deva* is Daeva, *namah* is nemo, *aśva* and *viśve* are aspa and vispeŋ. The grammatical forms are almost the same, only they are mispronounced either deliberately to make the cleavage permanent or because the speakers were uncivilized barbarians.

I have only one word about *mleccha* which is not a Sanskrit word. I have long thought it to be Molech or Melech, which originally meant 'King' and was the name of the supreme god of the Ammonites, hereditary foes of the Israelites. The speech of the Ammonites or worshippers of Molech or Melech sounded barbarous to the ears of the Indian Aryans. Any departure therefore from standardized Sanskrit was set down as *mleccha.* The Zoroastrians mispronounced vowels; they pronounced *r* as *ere*; they said *vererthra* for *vṛtra*, *perethīvi*, for *pṛthvī ; kratu* they call *khrathu*, *citra* and *putra* as *cithra* and *puthra.* The Indian Aryans were bound to call such speech *Mleccha.* Unintelligible or mispronounced speech is naturally barbarian to unaccustomed ears.

India was certainly not the home of the Ṛgvedic people. Words like *asura*, *paṇi* (Phoenician), *dasyu* point to a domicile other than India.

Māyā.

1 *Māyā* has the sense of *asuratva.* It means the creative power.

2 It means also 'thaumaturgy' or the power of working miracles. There is not much difference between 1 and 2.

3 In many instances it means 'wiles, tricks, tactics' which are employed both by Indra and his opponents.

4 In a few cases it means 'sorcery, witchcraft, magic.'

5 In two instances only it means 'illusion, appearance.'

6 In *asurasya māyā*, the *asura* is the supreme god of the Indian Aryans. He is the Assar Mazaash of the Chaldeans or Assyrians and Ahura Mazdah of the Zoroastrians. He cannot be identified with Varuṇa, notwithstanding the moral resemblance between Ahura Mazdah and Varuṇa. This *asura* em-

ploys *māyā* in creating the Universe and its several parts. All wonders of the world are due to that.

7 In Avesta the corresponding word is *mayā,* but the instances of its use are very few and very doubtful.

A Study in the Idea of Rudra. *By* S. D. SATAWALEKAR.

The oriental scholars state that "Rudra is the lightning and he is the god of storms." This is one of the many aspects of Rudra.

Vedic seers identify Rudra with Indra, Agni and Kāla. This identification is not meaningless; it is due to their valour, lustre and destructive power respectively.

Etymological meanings of Rudra are five—(1) speaker, (2) trouble-remover, (3) trouble-giver, (4) oppressor, and (5) weeper. Every derivation separates one word from the rest. It is a mistake to suppose that one word has got so many derivations.

There are at least five groups in the names of Rudra. (1) *The speaker group* includes a praiser, president, a minister, a congress and such other Rudras. (2) *The trouble remover* group includes, a doctor, a warrior, an army and its leader, a merchant or an artisan and such other Rudras. (3) *the trouble giver* group includes a murderer, a thief, a rogue, a cheat and such other criminal Rudras. (4) The fourth group comprises such Rudras as make others weep, as oppressors and punishers. (5) In the fifth group all kinds of weepers are included.

So all these groups cover the whole of the creation.

Every name of Rudra is governed by the word *namaḥ* in the Rudra hymn. This *namaḥ* means (1) salutation, (2) food, (3) a weapon, (4) a gift, (5) a sacrifice. These meanings are to be read with the above Rudra group.

There is " *one and without a second*" Rudra and there are innumerable Rudras. In those innumerable Rudras all the above five groups are included.

Besides these there are Rudras in animal kingdom also. Disease-producing germs are also called Rudras.

The Mention of the Mahābhārata in the Āśvalāyana Gṛhya Sūtra. *By* N. B. UTGIKAR.

The note is an attempt to examine some of the objections raised against the genuineness of the mention of the Mbh. in the ĀGS.

After detailing (§ 1–5) the treatment of the passage in the writings of Orientalists and its importance and the objections raised, the note proceeds to point out (§ 6–11) that the omission in some MSS. only of the word Mbh. is nothing else than what is known in textual criticism as "Homœography". § 12 points out that the non-mention of the Bhārata and the Mahābhārata earlier in the ĀGS itself cannot be made a point against ĀGS, since the earlier passage enumerates works (and not authors, Ṛṣis or Ācāryas), this enumeration being based on an older list such as *e. g.* is preserved in the Śatapatha Brāhmaṇa.

§ 13–15 consider the objections raised by a comparison of the similar list in the Śāṅkhāyana Gṛhya Sútra. The objections are met by the argument that (1) Oldenberg is disposed to regard the particular sections of the Śān. Gṛ. Sūtra as later additions; and (2) it is also pointed out that the enumeration of two works only, *viz.* Sūtra, Bhāṣya in the midst of Ṛṣis preceding and following in the Śānkh.GS text raises a strong presumption against the genuineness of their occurrence in that Sūtra.

In § 16 – 17 an attempt is made, on the basis of the tradition preserved by Ṣaḍguruśiṣya that Śaunaka was the Guru of Āśvalāyana, to substantiate the main contention that Āśvalāyana very probably knew the tradition of both a Bhārata and a Mahābhārata.

On the basis of the same authority and the statements contained in the Mahābhārata itself, it is made probable in § 18-20 that the Bhārata became the Mahābhārata about the time of Śaunaka.

In § 21 is shown how Śaunaka and Āśvalāyana stand on the borderland between the Vedic and the Sūtra period (both being the authors of parts of the Aitareyāraṇyaka and of Sūtra works), and how perhaps a new order of things was initiated by the Great War (supposing it were a historical event).

Finally it is hinted how indications are left which endow the reigns of the early four or five Paurava kings with peculiar significance from the literary and social point of view.

Gotra and Pravara. *By* C. V. VAIDYA.

1 Gotra according to all Sūtrakāras is the name of some descendant of one of the 7 Ṛṣis viz. the Saptarṣis (1) Jamadagni, (2) Bhāradvāja, (3) Vaśiṣṭha, (4) Viśvāmitra, (5) Kāśyapa, (6) Gautama, (7) Atri and (8) Agastya.

The Mahābhārata however preserves a śloka which states that originally the Gotras were four only, viz. Bhṛgu, Āngirasa, Kāśyapa and Vāśiṣṭha.

This seems to show that originally four stocks of Aryan families came to India and subsequently three more families viz. Viśvāmitra, Atri and Agastya came into India, of course in Vedic times, for these Ṛṣis are also composers of Vedic Hymns.

2 What is Pravara? That is known, it is feared, to very few, even orthodox and learned Brahmins. The Śrauta Sūtras show that the Pravara consists of those Ṛṣis in one's ancestry who are composers of hymns in the Ṛgveda.

3 These Pravaras are 49 in number, though the Gotras may be numbered by thousands. The Pravaras are the same all over India and among all Brahmins and Kṣatriyas. And they contain the names of many Rājarṣis i. e. holy-Kings (Kṣatriyas) who have composed Vedic Hymns. It thus appears that the original Ṛṣis are the progenitors of all Indo-Aryans, Brahmins, Kṣatriyas and Vaiśyas alike.

The Nirukta and the Nighaṇṭu: their mutual relation. *By* SIDDHESHWARA VARMA.

1 What is the Nirukta?
  1 As a book, it is a commentary on the Nighaṇṭu.
  2 Derivation of the word Nirukta and the works where it first occurs.

2 What is the Nighaṇṭu?
  1 Contents of the Vedic Nighaṇṭu.
  2 The number and the nature of the words given in the Nighaṇṭu.

3 Characteristic features of the term Nighaṇṭu.

4 Distinctive features of the Vedic Nighaṇṭu as contrasted with other lexicons.

5 The term Samāmnāya (the first word of the Nirukta)
  (1) Its literal, primary and secondary significance.
  (2) Its bearing on Yāska's authorship.
  (3) Used with reference to the Nighaṇṭu, and signifying 'a traditional collection of Vedic words'. It shows that Yāska was merely the editor and not the author of the Nighaṇṭu.
  (4) A passage from the Mahābhārata on the authorship of the Nighaṇṭu.

6 Conclusion:
  The Nighaṇṭu is a Vedic lexicon, on which the Nirukta is a commentary.

Arya and Dasyu—A Chapter in Social History. *By* S. V. VISWANATHA.

The Paper deals with the relations of the early aboriginal population of India with the immigrants–the Aryans. The subject has been dealt with in its social, religious, commercial and political aspects.

Ārya and *Dasyu* are contrasted, one from the other as possessing distinct and special characteristics.

The *Dasyus* were the non-Aryan people of India distinct from the Aryans. The view that they were superhuman is controverted.

The relations in war of the two peoples. As a result there is the expansion of *Āryāvarta* at the expense of non-Aryan territory and the gradual reduction of the aboriginal population to the condition of serfs. The different senses in which the term *Dasyu* was used : people or tribe ; enemy and slave or serf.

The relations in peace—divided under social and religious—in agriculture and in commerce. The policy of give and take—fusion of the two. Social—The apparent conversion of the Dasyu to the Aryan fold and intermarriage between the two peoples indicated.

In the fields of agriculture and commerce the two appear to have mingled likewise. The Indian agricultural system was as much non-Aryan as Aryan and the sea voyages and relations with foreign lands were undertaken more by the former than by the latter.

It is suggested that there was the *gradual fusion* of the two races and the early processes in the making of India are traced in general.

The Philological Argument for an Upper Limit to the Date of the Ṛgveda. *By* A. C. WOOLNER.

This paper does not pretend to fix the date of the Ṛgveda. Need of resisting *bias* towards an earlier date simply because it is more remote, or towards a later date, simply because it is nearer dated events.

Statement of the Argument : Comparison of Avestan with Vedic language proves that Aryans could not have entered Panjab long before 1300 B.C., and therefore no Vedic hymn is much older than 1300 B.C. Moreover, granted that the Brahmaṇas begin about 800 B.C. four centuries suffice for the Mantra period, therefore anything older than 1300 B.C., is highly improbable.

The latter part of the argument only gives the *lower* limit for the beginning of the Ṛgveda. The upper limit is in question.

Difficulties: Comparison argument initiated to prove "extreme age" of Gāthās; adapted to disprove "extreme antiquity" of Mantras; possibility that the resemblance has been exaggerated. Absence of definite starting points on either side. Why not compare inscriptions of Darius with those of Aśoka?

Granted that all languages change, do they change at a uniform rate, or can one strike an average for six or seven centuries?

Parallels suggested: Greek from Homer to Plato. "Homer" is an indefinite date; the dialect-factor is obvious; the conditions very different; the changes in literary Greek down to the newspaper of to-day less rapid.

Europeanising of America and Aryanising of India. Difference of conditions suggests this comparison is irrelevant, especially as the latter process is less complete than the former.

Other Parallels: The records of Egypt, language of Sargon and Nebuchadnezzar, Chinese literature.

Objection : Stability of script or written language, not of pronunciation or folk-language, but possibility of oral tradition and poetic dialect for both Mantras and Gāthās.

Parallel of Romance languages: Convenient because more dated documents and history known from other sources.

An Experiment: From a comparison of the Spanish and Italian versions of the Psalms to determine when the Romans colonised Spain.

Difficulties: (*a*) Relative value to be assigned to changes (i) phonetic (ii) grammatical structure due to (*a*) phonetic change; (*b*) new methods (iii) vocabulary.

A tentative compromise: (b) Given a ratio of resemblance in this form, how can it be applied to chronology? Which affected Spanish most, the original contact with Iberians, the invasion of

Visigoths, or contact with Arabic-spea ing Moors ?

If for the first five centuries of the Roman occupation the language of the colonists remained essentially Latin, then a calculation based on the assumption of a definite cleavage starting from the first invasion of Spain will be several centuries wrong.

(One reason for this slow differentiation was continued contact with Rome).

Application of this Experiment to Avesta and Veda: In absence of information as to actual cleavage of Aryans, there is the possibility of contact and of parallel development for several centuries, which philology cannot disprove.

Conclusions: 1 Any attempt to fix chronological limits on the basis of comparing languages should be based on a more exact numerical comparison than has been attempted hitherto. This opens up a new line of research.

2 It is necessary to realise that while history known from other sources can be traced in the history of language, it is much more precarious to reconstruct history on a basis of comparative philology. In particular it seems that 2,000 B.C. remains quite as possible as 1,200 B.C. for the earliest mantra in the Ṛgveda.

If 2,000 why not 3,000 or even 4,000 B.C ?

No direct philological proof, but *if* exact comparison shows this means assuming a degree of stability twice as great as that recorded anywhere else in the world, philologists may reasonably demand strong confirmation from archaeology, and if it means a degree of stability in folk-speech (say) ten times as great as anything found elsewhere, the philologist will not be able to regard such a date as even faintly probable.

Doubtful however, whether anyone would now propose so remote a date as 4,000 B.C. for the *actual text* of any hymn, or for the Aryan Settlements in the Panjab. The date of the Vedic deities and of many elements of Vedic culture and belief is a different matter ; some strands in the web are admitted to be Indo-Iranian, and even Indo-European.

II.—Avesta.

Sanskritised Passages from the Gāthās. *By* DASTUR KAIKOBAD A. NOSHERWAN.

The resemblance between the language of the Gāthās and that of the Ṛgveda is very great. It is possible with the application of certain phonetic laws, to throw a Gāthā into a genuine Ṛc-form and vice versa. Such an attempt for the Pehlavi was done some centuries ago by Mobed Nairyosangha; the same ought to be done on an exhaustive scale for the Gāthās of the Avesta. Some Gāthās from Ahunavaiti are translated into Sanskrit in this paper.

Results of the comparison. Great phonetic and etymological similarity between the languages. This points to a period when the Vedic and Avestan Aryans began to secede from each other. Perhaps the parting was due to a revolt against the domination of the Vedic language and religion; a parallel in Buddhism. The Avesta religion is a stand against the multiple Nature-worship of the Ṛgveda.

The revolt was complete long before the conquest of Medea by Cyrus.

Airyana Vaejo, the cradle of the Aryans and Mazainya Daeva, the Devas of Mazandru or Brahmanical Devas. *By* J. D. NADIRSHAH.

From records in the Zend-Avesta and the Pahlavi Bundehshu, I have traced the site of Airyana Vaejo, the birth-place of the primitive Aryans, to the south-eastern foot of the Caucasus. It was gradually extended southwards during the regime of the Yama Dynasty. Having determined this, it was not very difficult to show that Mazandrau was the ancient home of the Vedic Brahmins. In ascertaining this I am much assisted by the original significations of the terms *Mazainya Daeva and Mazandrau*, as also by the account of Indra Daeva in V. XIX, and by his different attributive names.

Modern Science in Ancient Iran. *By* M. B. PITHAWALLA.

Experience shows that 'ideas' always endure even if the words and deeds that enclose them disappear. For the Parsees of India to remember Iran is to remember their lost youth, and that youth must have permeated the structural frames of the nations that once surrounded the Persian Empire and ultimately absorbed that Empire. Looking to the richness of the Greek and Arabic literatures, it might be said that parts of the MSS. of which there were, according to Tarbari, 12,000 hides, must have been translated or paraphrased into the languages of the country's enemies.

For this rather too ambitious a subject our sources of information are: (1) Fragments of Avesta and Pahlavi books and (2) Records and reminiscences of the Aryan, Greek, Arab, Roman, Egyptian and Indian peoples.

Of the 21 Nasks in the great library of Persepolis, some were entirely devoted to science and very little or nothing is left for us to-day. In vain would we search for treatises like Viṣṇupurāṇa. Arthaśāstra, etc. In an age of great scientific achievements, vague and unsystematic references to modern science in old books like the Avesta, are likely to be considered *trivial*, and yet the Zend-Avesta reveals with the eye of science, ideas, principles and practices of the Ancient Iranians resembling those of the present day. There is not the least doubt that they believed in the law of Unity of life, to which Dr. Sir J. C. Bose has contributed much in the new world. The little, that is at our disposal to-day, shows how it is possible for Religion to go hand in hand with Science. The world-famous religion of Iran was based on some scientific truths and facts which are corroborated by modern scientists. In Europe, unlike in Iran, Religion remained averse to Science. Science promised too much there, achieved but too little. Realism led ultimately to anarchism. People do not understand how far science could help her handmaid, in man's investigation of the laws and secrets of nature and of human life. It is a mistake to suppose that classic Persia neglected the affairs of the nature and of the living, changing world. Indeed, practical

Persia raised its house of philosophy and spirituality on the firm rock of nature and her laws. And to-day "the freshest Graduate from the Elphinstone College has no cause to blush for the 'ignorance' of Zarathusht!"

We shall know herein the twofold objects of science which the old Persians kept in view, *viz.* (1) To make human life healthy and (2) to satisfy human longing for the supernatural.

1 *Fire-energy and the theory of light and heat:* All forms of energy, including electricity, ultimately turn into heat energy. Heat is life and life is heat. 'Fire-worship' is the worship of the *spirit* of the Universe. Ātash, like electricity, gives long, healthy and quick life.

With Ātash there is the worship of Khorshed (Sun) and of Meher, Mithra (Ether.) Both of them are always together and jointly praised. The light of the Sun is conducted through the Ether (Mithra) of space. Matter is therefore related to ether and ether to spirit.

2 *Law of polarity:* This law is most manifest in the whole universe. The earth itself is a huge magnet.

The two life's First Principles, though opposed to each other, are essential for physical, mental and spritual evolution. *Spenta Mainyu* is the higher potential of electricity of life, while *Angra Mainyu* is the lower one.

3 *Chemistry*: There is no regular Śāstra in the Avesta, but the Iranians could prepare and use metals, drugs, charms, scents etc. Chemistry in Iran had much to do with medicine. Steel weapons were used, and coins were struck.

4 *Medicine and Surgery: Thritha* was the first Iranian physician, who was gifted with ten thousand medicinal plants. There were three kinds of cures, herbs (drugs), knife (surgery) and charms (magic.) Fevers, colds, plagues, itches, etc., were cured by Faridun and others. The college of surgeons allowed 3 trials only, first on a 'Daeva-worshipper' and then on a 'Mazda-worshipper'. Failures made them unfit for ever. Midwifery was highly developed according to the *Vendidād.*

5 *Chemistry of Gaomez:* There is no antiseptic in the preserved Bull's urine. But it remains preserved for years on account of an extra percentage of Alkali. There are no injurious bacteria. Its use to-day is highly criticised.

6 *Hygiene* : The Ancient Persians are known for their more or less perfect Code of Hygiene. Air, light, heat were appreciated. Burial of the dead was strictly prohibited from a purely hygienic and sanitary motive. A system of Quarantine for infection and contamination was enforced. Things pervious to water were never used for ceremonials. River and well-waters were never to be polluted. The Parsees still possess a hygienic code and practise it up-to-date. The Parsees unlike other peoples have had to abstain from 'smoking'.

7 *The Hygiene of the Dokhma:* The Tower of Silence is constructed on a perfect system of sanitation and quite harmless, if it is not the best in some people's opinion.

8 *Geology and Astronomy:* References to the glacial epoch, the roundness and rotation of the earth, gravitation, formation of rain have been noted in the Avesta. Astrology the Persians might have borrowed from Chaldea. The Iranians marked the Solar year and once possessed a most correct calendar, including the Leap Year scheme.

9 *Agriculture:* To sow corn was to sow righteousness. Agriculture was Iran's speciality and irrigation was practised. Corns, medical plants, fruits were grown.

10 *Vegetable and Animal Kingdoms:* The Haoma and Beresem plants are prominent and there is in the Bundahish a book of Botany in its most elementary stage. Domestic animals were taken great care of and praised. Butter etc., were made.

11 *Arts and Crafts*: In architecture the Iranians excelled and influenced surrounding countries. There are splendid remains in Persia to-day, showing their skill in sculpture, decoration, painting etc. Also there were the arts of music, pottery, jewellery and other useful and artistic pursuits.

12 *Miscellaneous:* The Iranians were also famous for their stone-carving, cave-making, coin-making, navy, forts, postal system, political economy etc. Also, Zarathuṣtra is supposed to have known electricity and some ceremonies were based on occult principles.

Thus an endeavour is made to touch, mainly through the Avesta in this paper, the smouldering embers of the *Fire* that blazed with magnificent radiance in Iran and illuminated the many lands over which it held sway for centuries. The twilight of all European sciences, that seems to dazzle some of the moon-stricken people there, is but the light originally received from the Sun of the Aryan East which shone powerfully over Chaldea, Babylonia, Medea, Egypt, India, Greece and Rome. Europe is but a satellite depending for her illuminations on that same Sun, that has now gone below *our* horizon, and like "the pale queen of night" she struggles to hide her own misgivings and bewitch her own as well as our people. But by dint of the great law of Righteous Order (Av. *Aśa*, Sk. ऋत) we are sure the same Luminary shall rise again, and again the dormant East shall rouse herself from her dreamy attitude, eclipsing the dimly-lighted West which lately laboured to burn herself.

The Avestan Archangels and Sanskrit Deities : a Comparison. *By* A. K. VESAVEVALA.

It has been proved by history and the Avestan and Sanskrit studies that in times immemorial the forefathers of all the Aryans, Hindus and Europeans had a common home in Aryana Vaejo and later on they inhabited a greater part of the eastern, western and southern regions. It is not known where this Aryana Vaejo was, but it is supposed recently to be somewhere in the Arctic regions. The causes of their separation were mainly of a social, political and religious nature. The Aryans after they had left their home led a pastoral life and sometimes cultivated some patches of land. The religion of these tribes consisted at first in worshipping all the good elements of nature separately, while that of the old Aryans as opposed to the Iranians was branded by the

latter as a source of mischief as some of the Daevas presided over natural objects possessing evil qualities. The Ahurian religion of agriculture was instituted which separated them from their Aryan brethren. Its founder was the one great personage Spitama Zarathuṣṭra who taught the worship, not of many gods, but of one true god Mazda. He applied the term Ahura Mazda to God and hated the Daeva-worshippers by naming his religion as Va-Daeva *i. e.* opposed to the Daevas. Thus these two tribes separated, but both of them kept the names of their ancient angels and heroes permanent, in order to show their respect and reverence for them and so we find similar names both in the Avesta and the Vedas as the Avestan Mithra, Sanskrit Mitra.

The Daevas is the name given in all the Vedas and in the whole Sanskrit Literature to the divine beings or Gods who are the objects of worship on the part of the Hindus even to the present day. In the Avesta from its earliest to the latest texts and in Persian, Daeva is the general term for an evil spirit which is hostile to all that comes from the Almighty and that is good for mankind.

The difference between the Avestic Yazata and the Vedic Daeva is that whereas the Avestan Yazatas show only good attributes and are represented as shining and immortal, the Vedic Daevas are depicted as injuring mankind to a very large extent. The Hindus worship the Daevas with the main object that they may escape scot-free from their destructive influence, as for example they worship Yama the demon of death with a view to be free from his pains. Again the Vedic Daevas are not represented as shining and immortal. They assume a human form and involve themselves in these worldly attractions and pleasures. Again human sacrifices were offered to the Vedic gods whereas in Avesta no such sacrifices seem to have been offered to the angels.

Now let us come to the main point.

The first and most worthy of adoration is Ahura, the wisest, the greatest and the best. He is Omniscient, Omnipotent, the Supreme Sovereign, All-in-all, and All-beneficent. In the Vedas we find Asura used in a good and elevated sense as in the Avesta. In the plural it is used for all the

gods. When Zoroaster taught the worship of one god and despised the worship of many gods, he applied the word Ahura for one deity; later on the believers in Vedas used the word Asura in a bad sense and applied it to the bitterest enemies of the Devas with whom these Asuras are depicted as always fighting. The second archangel after Ahura is Vohu Mano. The literal meaning of the word Vohu Mano is 'the good mind.' The opposite of him according to Avesta is Akam Mano. We do not find any equivalent of Vohu Mano in the Vedic literature.

Then comes Aśa Vahiśtar meaning the best righteousness. He is the Archangel presiding over fire, the reason being that fire is the symbol of purity. The opposite of him is Indra. Indra the chief god of the Brahmins, the thunderer, the god of light and the god of war, one for whom the Ṛṣis drank and squeezed the Soma beverage, is expressly mentioned in the list of demons in the Avesta. In the Vedas he is considered as the great god on the same level as the Avestan Ahura. In the Vedas many hymns are recited in his praise. He fights with the Asuras, with Vṛtra and Ahi and also with Dasyus and Gandharva.

The fourth archangel is Khṣathra Vairya which means the desirable strength or sovereignty. This personified abstraction, rightly observes Prof. Jackson, represents an embodiment of Ahura Mazda's might, majesty, dominion and power, or that blessed reign whose establishment on earth will mean the annihilation of evil. Saurva (Vedic Śarva) occurs as the opponent of Khṣathra Vairya. The Vedic Śarva is called the Śiva of the Hindus. His work is to produce mismanagement, oppression and drunkenness in men.

After him comes Spenta Armaiti, which means literally 'the beautiful righteous thinking.' By this is not only meant wisdom but something even more than that, *viz.* humility and quiet resignation to the divine will. Naonhaithya, Vedic Nāsatyā, is the name of an evil spirit in the Avesta. He is the demon of dissatisfaction and illusion. Haurvatat and Amaretat, the two last Archangels, form an inseparable pair. They appear almost constantly united. Their names

signify invulnerability or totality and immortality. The adversaries of Haurvatat and Amaretat are Tanru and Zairicha, the demons of sickness and decrepitude or feebleness. In the Vedas we find the evil powers all fighting against the angels produced by Brahmā and just as Zairicha is considered to be the opponent of Amaretat, so Zaras in the Vedas is supposed to be the evil power against vegetation and plants.

III.—Pali and Buddhism.

Buddhist Philosophy of Change. *By* MAUNG SHWE ZAN AUNG.

1 Introductory remarks

2 (*a*) Flux as original from the Buddhist point of view as from the Bergsonian

(*b*) A discussion of the technical term *anicca*

3 Hallucination and Change

4 Continuity *versus* succession

5 Perception and conception of change

6 Buddha's attitude towards conceptual change

7 General method of contemplation of change

8 Intellectual verification of conceptual change

9 Inter-relation between conceptual change and pain

10 Philosophical equanimity, a *sine qua non* of intuition.

11 (*a*) Period of adaption for intuition

(*b*) Thought-transition from intellect to intuition

12 Adoption into the family of intuitionists

13 Intuition of true flux

14 Triple marks of one reality

15 Nibbāṇa, true flux

16 Concluding remarks.

The Vinaya Literature of the Buddhists. *By* N. K. BHAGWAT.

1 Pali literature is vast, though the canonical literature is handy. The three Piṭakas. The Vinaya Piṭaka forms the subject of the paper. The "Buddhists," in this paper, connote "The Hīnayānists." The paper is an humble attempt to have an idea of the Vinaya literature and does not pretend to be exhaustive.

2 What is Vinaya? Evolution in the idea of Vinaya from mere Sīlāni, to a " body of rules and regulations for the guidance of the Saṅgha." Traced through different stages by showing how the terms ' Vinaya, ' 'Pātimokkha' had first ethical significance and how gradually legal aspect came to be seen.

3 History of the Vinaya literature as given by Buddhaghoṣa in his Bāhiranidānavaṇṇanā. Upto this time not received sufficient attention at the hands of western scholars. A very good attempt to trace the history of Vinaya from the Parinibbāṇa of the Buddha to its (Vinaya) establishment in the island of Ceylon. Making allowance for superhuman element in the narrative, the book has a great historical value. The tradition of the southern Buddhists is clearly seen.

4 Web-like growth of the *books of the Vinaya Piṭaka* first simple verses, having ethical purity as its burthen. Then simple rules like the Sikkhāpadānī-the complicated Pātimokkha-the expanded version of the Pātimokkha in the Sutta Vibhaṅga. The Khandhakas, superiority in narration and style. The Parivāra Pāṭha a kind of manual to assist memory and to bind the different works of the Vinaya. *Subsidiary Literature* in the form of commentaries and Tīkās. *English Translation* and *criticism* on the Vinaya, complete the survey of the Vinaya Literature of the Buddhists.

5 The object of the paper is over. But the importance of the Vinaya to a research scholar is very great. It throws light upon the Buddha, the Dhamma, the Saṅgha, the political, moral, intellectual, agricultural, medicinal state of Northern India and thus helps us in solving the problem of filling up a gap in the history of India from 400 B. C. to 200 A. D.

The Burning of Mithilā. *By* C. V. RAJWADE.

1 The burning of Mithilā is merely figurative.

2 There were common stories current among the people about King Janaka's renunciation and the temptation to which he was subjected.

3 There were originally two different versions of these stories which later on got mixed.

4 There is no evidence of any actual borrowing. All may be said to have drawn on the common fund of folklore.

5 The bracelet and heaven and hell incidents were in all probability quite distinct.

6 The Buddhist and Jain versions seem to have tried to bring together all isolated factors in the stories current about king Janaka.

7 The Jains seem to have substituted the name of Nimi for that of Janaka.

8 The Mbh. versions are too abrupt and isolated and may very well have been later additions.

Buddhist Philosophy (in Pali.) *By* WIDURUPOLA PIYATISSA.

The author of this Nāya or Buddhist Philosophy is the Arahant Mahākaccāyana Thera, one of the eighty chief disciples of Lord Buddha. This philosophy was produced by him for the sake of interpreting the Buddha's teaching, which is divided into nine Aṅgas or divisions according to the subject matter.

The nine Aṅgas are :—

1 Sutta (Discourses) 2 Geyya (Mixed prose and verse) 3 Veyyākaraṇa (Discourses without verses) 4 Gāthā (Verses) 5 Udāna (Joyous utterances) 6 Iti-Vuttaka (Sayings of Buddha at which Ānanda Thera was absent) 7 Jātakas (Birth stories) 8 Abbhutadhamma (Extraordinary things) and 9 Vedalla (Pleasurable discourses).

Lord Buddha has taught nothing outside the scope of these nine. Those who are desirous of interpreting any of the Buddha's teachings should at first study the Buddhist Philosophy. This very Mahākaccāyana Thera is the author of two works Peṭakopadesa and Netti-prakaraṇa. The latter being approved by Lord Buddha was recited at the First Saṅgha Convocation. Later, the great commen-

tator Bhadanta Dhammapāla Mahāthera of the Badaratittha Vihāra wrote a commentary on it which is still held in high repute by the learned Mahātheras of Ceylon, Burma and Siam, who are well versed in Dhamma.

Yet for all in Ceylon it is not much popular as it is not tau t to the pupils by their teachers. There being an interpre tion of the Buddha's teaching in this work, and without a k wledge of which the students are liable to be illogical in ving their interpretations, it is highly beneficial if the tea ers in Ceylon do undertake the task of teaching this work or this philosophy to their pupils.

In consequence of these and many other advantages I avail of this opportunity to prepare a paper on the Nāya or Buddhist Philosophy in briefly confining my attention mainly to the Netti and its commentary.

The author has divided this work into two sections.

(*a*) Saṅgaha Vāra (abridged section)and (*b*) Vibhāga Vāra (classified section).

Saṅgaha Vāra.

The following is briefly described in it :—The teaching which ought to be interpreted according to the Nāya or Buddhist Philosophy is considered by the name " Sutta ", which then divides itself into twelve kinds according to the letter (Byañjana) and meaning (Attha).

The sixteen Hāras, the five Nāyas, and the eighteen Mūlapadas, are alone considered as the Netti or Buddhist Philosophy.

Byañjana (Letter) is explained by the sixteen Hāras, Attha (Meaning) by three Nāyas (Nandiyāwaṭṭa &c.) and the Sutta by the above and the rest.

Vibhāga Vāra.

This is sub-divided into three other sections, Uddesa, Niddesa, and Paṭi-Nidessa.

I. Uddesa Vāra

The following names are mentioned in it. The sixteen Hāras:—

1 Desanā, 2 Vicaya, 3 Yutti, 4 Padaṭṭhāna, 5 Lakkhaṇa, 6 Catubbyūha, 7 Āwaṭṭa, 8 Vibhatti, 9 Pariwattana 10 Vevacana, 11 Paṅṅatti, 12 Otaraṇa, 13 Sodhana, 14 Adhiṭṭhāna, 15 Parikkhāra, 16 Samāropanā.

The five Nayas :—

1 Nadiyāwaṭṭa, 2 Tipukkhala, 3 Sīhawikkīḷita, 4 Disālocana, 5 Aṅkusa.

The eighteen Mūlapadas :—

Nine of which are in the Akusala (Immoral) section.

1 Taṇhā (Craving), 2 Avijjā (Ignorance), 3 Lobha (Greed), 4 Dosa (Hatred), 5 Moha (Delusion), 6 Subha-Saññā (Agreeable perception), 7 Sukha-Saññā (Pleasurable perception), 8 Nicca-Saññā (Perception of permanence), 9 Atta-Saññā (Self-perception).

The remaining nine are in the Kusala (Moral) section.

1 Samathā, (Concentration), 2 Vipassanā (Insight), 3 Alobha (Disinterestedness), 4 Adosa (Amity), 5 Amoha (Freedom from delusion), 6 Asubha-Saññā (Disagreeable perception), 7 Dukkha-Saññā (Painful Percepton), 8 Anicca-Saññā (Perception of impermanence), 9 Anatta-Saññā (Selfless Perception).

II. Niddesa Vāra

A fair description of the following appears in this section. The above-mentioned Hāras and Nayas are fairly described in five ways Padaṭṭhāna, Lakkhaṇa, Kāma, Etaparamatā and Hetu.

Also the six Byañjanas, Akkhara, Pada, Byañjana, Nirutti, Niddesa, and Ākāra.

And the six Atthas, Saṃkāsanā, Pakāsanā, Vivaraṇā, Vibhajanā, Uttāni-Kamma, and Paññatti.

III. Paṭi-Niddesa Vāra

This is sub-divided into four, (*a*) Hāravibhaṅga Vāra, (*d*) Hāra-Sampāta Vāra, (*c*) Naya-Samuṭṭhāna Vāra, and (*d*) Sāsana-Paṭṭhāna Vāra.

(*a*) Hāravibhaṅga Vāra is that which describes how many scriptural texts are contained in one single Hāra.

(*b*) Hāra-Sampāta Vāra is that which describes how all the sixteen Hāras are contained in one scriptural text.

(*c*) Naya-Samuṭṭhāna Vāra is that which describes in detail how the three Attha Nāyas, viz, Nandiyāwaṭṭa, Tipukkhala and Sīha-Vikkīḷita and in brief the two Kamma Nāyas Disālocana and Aṅkusa appear.

(*d*) Sāsana-Paṭṭhāna Vāra is that which, after having shown the eighteen Mūlapadas in sixteen kinds of Suttas like the Samkilesabhāgiya, Vāsanābhāgiya and so forth, and in twenty eight ways like the Lokiya (mundane), Lokuttara (supramundane) and so forth, describes the two divisions comparing also both of them.

The brief contents of this paper are arranged according to the method followed in the Netti and its commentary.

Nāgārjuna—the earliest Writer of the Renaissance Period

By SATIS CHANDRA VIDYABHUSANA.

The rule of the Kuśanas, which extended from 50 B. C. to about 350 A. D., was, to a great extent, synchronous with that of the Āndhras who seem to have held sway up to the 4th century A. D. Kaniṣka, more often called Kanika, was, as it appears from the Tibetan and Chinese books, a general name for the kings of the Kuśana dynasty, just as Sātavāhana was, in the opinion of Sir Ramkrishna Gopal Bhandarkar, a common name for the kings of the Āndhra dynasty. The fourth Buddhist Council for the codification of the Tripiṭakas in Sanskrit was held in Jalandhar under the patronage of a certain Kaniṣka of the later Kuśanas, and it was perhaps to the son of this Kaniṣka that Aśvaghoṣa addressed a letter under the title of *Mahārāja-Kanika-Lekha*, a faithful translation of which is contained in the Tibetan Encyclopædia called *Bstain-hgyur*. The son, who is described as a descendant of the Sun, is advised to imitate Ḍeva, signifying a god as well as Āryadeva. In fact the son

was a junior contemporary of Āryadeva and his forefathers must have lived long in India before he could be described as a scion of the solar race.

Nāgārjuna, who was a senior contemporary of Aśvaghoṣa, wrote a letter called *Nāgārjuna-suhṛllekha* to a certain Sātavāhana of the Āndhra dynasty. In the Tibetan version of this letter contained in the *Bstain-hgyur* the king is precisely named as Udāyibhadra. This name does not occur in the list of kings of the Āndhra dynasty available up to date, and it is possible that he was not a monarch but a vassal king who possessed considerable political influence at the end of the third and the beginning of the fourth century A. D.

Now Tan-cao, a Chinese disciple of Kumāra-jīva (400 A. D.) states that Āryadeva lived a little over 800 years after the Nirvāṇa of Buddha. On the assumption that Buddha attained Nirvāṇa in 480 B. C., Āryadeva and his contemporary Aśvaghoṣa must have lived about 320 A. D. Consequently Nāgārjuna may be placed at about 300 A. D., and Kaniṣka under whose patronage the fourth Buddhist Council was held lived perhaps about the same time. This view tallies well with the statement in the *Rājataraṅgiṇī* that 12 reigns intervened between Kaniṣka and Mihirkaula (515 A. D.). In fact, according to Lama Taranath, Nāgārjuna was a contemporary of a king named Nemicandra, who ruled in Aparāntaka. On his death Phaṇicandra and two other very insignificant kings ruled in Magadha until Candragupta, who " did not take refuge in Buddha," founded the Gupta Empire in 319 A. D.

The Council of Kaniṣka inaugurated the renaissance of Sanskrit learning among the Buddhists by about 300 A. D. The later Āndhra chieftains too encouraged Sanskrit culture to a considerable extent. The Gupta kings by extending their patronage began to give an impetus to the renaissance movement among the Brahmins and to a certain extent also among the Buddhists by about 319 A. D. The teachings of Mahāvīra as contained in the Jaina Agamas were codified in writing by Devardhi Gaṇi Kṣama-śramaṇa at Balabhi

in 453 A. D. The band of scholars, who were the pioneers of the renaissance included Nāgārjuna (300 A. D.), Āryadeva (320 A. D.) and Aśvaghoṣa (320 A. D.). The second band included Praśastapāda, Vātsyāyana (400 A. D.) and Śabarasvāmi, while Diṅnāga (500 A. D.), Kālidāsa (530 A. D.) and Varāhamihira (505–585 A D.) constituted the third band. The Purāṇas and other important works were the productions of this period.

The first and foremost writer of the renaissance period was, as already observed, Nāgārjuna round whose name has gathered together a host of traditional stories referring to his gifts as a physician, a chemist and alchemist and a philosopher. Nāgārjuna was born in Vidarbha (Berar) during the reign of King Sātavāhana of the Āndhra dynasty and passed many of his days in meditation in a cave dwelling on Triparvata that bordered on the river Kṛṣṇā. That Nāgārjuna lived in Vidarbha is evident from an inscription on an image of Buddha by the side of the Amarāvatī stūpa in characters of the early 7th century A. D. The latest date that can be assigned to Nāgārjuna is 401 A. D. when his biography was translated into Chinese by Kumārajīva. That Nāgārjuna lived about 300 A. D. harmonises well with the fact that his disciple Āryadeva lived a little after 320 A. D.

Nāgārjuna was the author of a treatise on Logic called *Pramāṇa Vihetana* which is a review of the definitions of the sixteen categories as given in the Nyāyasūtra. A special feature of this work is that in it Nāgārjuna for the first time reduced the syllogism of five members into one of three. The Indian logicians, inspite of their stout opposition to Nāgārjuna's syllogism, found it in course of time most expedient to adopt the same. *Upāya-kauśalya-hṛdaya-śāstra* is the name of another work on logic in which Nāgārjuna gives a clear exposition of the art of debate. In the *Vigraha-vyāvartani-kārikā*, Nāgārjuna criticises the Nyāya theory of Pramāṇa, and it is perhaps this criticism which is reproduced in the Nyāyabhāṣya of Vātsyāyana in connection with his examination of Pramāṇa. But that which distinguishes Nāgārjuna pre-eminently in the world of letters is the Mādhyamika philosophy founded by him in consonance with

the principles of the great Mahāyānasūtra called Prajnā-pāramitā. The doctrine of the Mādhyamika philosophy has been a subject of constant attack by the Indian philosophers of all schools. An attempt has even been made to misinterpret it wilfully and even to discard it as a system of Nihilism, but it has emerged unscathed. Impartial judges have declared it even as the basis of Śaṅkara's Māyāvāda.

I have given only an imperfect idea of Nāgārjuna as a philosopher. He may be looked at from so many distinct standpoints that we shall not be far wrong if we call him the Aristotle of India.

IV.—Philology and Prakrits.

The Phonogenesis of the wide E and O in Gujarātī.
By N. B. DIVATIA.

1 *Nature and Scope of this sound.*

कोठी (=a jar), कॉठी (=the wood-apple tree); गोळ (=round). गॉळ (=molasses); वेल, छॅल ; वेरवुं, वॅर;—these represent the narrow and wide sounds. (I mark the wide sound with an inverted *Mātrā* sign.)

The wide sound resembles the sound in English "hat" and "awl" and the narrow one resembles that in English "hale" and "hole".

The wide sound is peculiar to Gujarātī, and Māravāḍī, Hindi represents by ॆ and ॊ the sound which is slightly different from the wide sound.

2 *History of the notice taken of this wide sound.*

Stray attempts at recognition of this sound were made by Gujarātī writers before 1888 A. D.

In A. D. 1888 and 1905, I brought this prominently to notice in a pamphlet (1888 A. D.) on 'Spelling Reform' and in a paper (1905 A. D.) on "Spelling" read before the 1st Gujarātī Sāhitya Pariṣad.

(1) My article (Indian Antiquary, January and May 1915 A. D.)
(2) Dr. Tessitori's article on "Bardic Survey", Appendix I, J. A. S., Beng. A. S. XII, 1916 A. D.
(3) My second article, Ind. Ant. 1917 A. D. and 1918 A. D. on "The wide sound of *E* and *O*".
(4) Dr. Tessitori's article in reply to above (No. (3)) Ind. Ant. September 1918 A. D.

contain the whole discussion of this subject.

The present paper is in the form of a rejoinder.

3 *The main issue : What is the origin of the wide sound?*

According to Dr. Tessitori, the wide sound is generated direct by अइ-अउ (original or derived by *samprasāraṇa*) [and the narrow one *direct* by अय-अव.]

According to me, the wide sound is generated by अय-अव (through अय्-अव्) original or derived by *prati-samprasāraṇa* [and the narrow one by अइ-अउ, original as well as derived.].

Thus :—

I.

वचन	वयण	वइण	वॅण
मलिनकं	मइलउं		मॅलु
गवाक्ष	गवख	गउख	गॉख
मुकुट	मउड		मॉड

represent Dr. Tessitori's Steps ; while

II.

वचन	वयण	वय्ण		वॅण
मलिनकं	मइलउं	मयलउं	मयूलउं	मॅलुं
गवाक्ष	गवख	गव्ख		गॉख
मुकुट	मउड	मवड	मवूड	मॉड

represent my steps.

4 वयर *and similar forms; Dr. Tessitori's account of the* य.

Dr. Tessitori denies *prati-samprasāraṇa.* I confront him with forms like वयर, वयरागी, पयसार, बयठउ, पयठउ &c., actually found in O. W. Rāj. works. Dr. Tessitori explains this य as a mere writing peculiarity, the scribe's writing य for इ ; it is not a real phonetic change, according to him.

To prove this Dr. Tessitori goes back to Prakrit works even and shows that in Jacobi's *Erzählungen in Māhārāṣṭrī* (Pp. 60, 61, 63, 72).

गयं, पयसारिओ, कयवयं and वयर, are found for
गइं, पइसारिओ, कइवय and वइर.

My reply :—The Mss. on which Jacobi based his edition were written in V. S. 1611 and 1660 respectively. Thus this य in Prakrit work can easily be accounted for by the fact that the forms with य were in actual use in O. W. R. and the scribes of this period naturally slipped into the Prakrit work this spelling quite foreign to Prakrit, as it came long after Apabhraṁśa ceased.

5 *Dr. Tessitori's varying views as regards this* य.

(*a*) Dr. Tessitori has actually regarded this as a real change, and cited वयर etc. as instances thereof from O. W. R works. (His "Notes", § 4-(5)).

(*b*) He, then, later on regards

(1) वयर &c. as instances of writing peculiarity ;

(2) वयर, वयरागी as Prakrit *tatsamas* ;

(3) That the अय may be a corruption of the Sanskrit ऐ.

("Bardic Survey" App. 1, p. 76.)

(*c*) Lastly, he regards

(1) The य as a writing peculiarity for इ ;

(2) वयरागी as a *tatsama* in part modelled on वयर.

(Ind. Ant. September 1918.)

(3) Also Beames, Vol. I., P. 238, § 60.

Thus, he is shifting his ground from time to time. Besides, the three sub-heads under (*b*) above show a conflict of views.

6 *Change of* उ *to* व. *Is it* व श्रुति ?

Dr. Tessitori objects that once O. W. R. has turned the व to उ, it cannot send the उ back to व. (O. W. R. changes the व to उ invariably *e. g.* कवड्डी–कउडी ; धवलउ–धउलउ and so forth).

My answer was that reversion is a well-known principle, and I cited instances of Sanskrit न्न, Pr. ण्ण, O. W. R. and offspring languages न again; Sanskrit. न्न, Ap. ण, again न (G). This being the case, there is nothing strange in उ reverting to व if necessary. Dr. Tessitori repeats old objections, and in the instances cited by me (देसाउर–देशावर, देउल–देवळ, देउर–देवर) sees, not reversion, but an interpolation of व श्रुति ; citing Mār. राबुल, राबुत in support of the argument.

My answer :—This बु is not the result of व श्रुति interpolated, but the turning of अ to उ, just as Mār. turns अ to इ in किमाड &c. Any how व श्रुति argument will not explain the case of कवण back from कउण.

7 *Movement of linguistic change backward and forward.*

I explained the presence of forms like बयठउ and बइठउ side by side, by the theory that laguages do not move on regular lines of uniform march, some forms will linger, some progress, go backwards and forwards, till a final settled state is reached. Dr. Tessitori considers this a novel theory requiring proof.

6

My answer :—(1) The change of ल to ळ and back to ल and again to ळ ; न to ण and back to न ; करइ–करि and करे are seen in such backward and forward movement in Mss. of different periods, so also अछइ–अछे, छइ–छे.

(2) Dr. Tessitori's own views support me.

(*Vide* his "Notes", Reprint, P. 5, ll. 16–20).

8 *The significance of the symbol* ॆ, ॊ *in Mss. of a period about the 16th Century A. D.*

Dr. Tessitori has a double argument ;

(*a*) He regards these ऄ-ऒ as steps from अइ-अउ towards the wide sound ;

(*b*) He contends that such ऄ-ऒ are found in Gujarātī Mss. of this period.

My answer :—

(*a*) The ऄ-ऒ in Mār. Mss. are but a feeble attempt to symbolize the wide sound ;

(*b*) I have made a patient scrutiny of many old Gujarātī Mss. of the period, and found that nowhere do these Mss. use ॆ, ॊ for the evolutes of अइ-अउ and that, where in very *rare* instances, these symbols (ॆ, ॊ) are found, they are there either because the scribe was a Māravāḍī or one under Māravāḍī influence.

9 *Confusion in Dr. Tessitori's view of the pronunciation of these* ऄ–ऒ.

What was the actual pronunciation of these ऐ–औ, *tadbhava* ऄ–ऒ as Dr. Tessitori calls them ? He really gives varying answers to this question : Thus

(*a*) The ऄ–ऒ were pronounced as diphthongs.
(Ind. Ant. September 1918, P. 227.)

(*b*) *Tadbhava* ऄ–ऒ were not pronounced exactly the same way as *tatsama* ऄ–ऒ but they were probably pronounced in a way similar to the ऄ–ऒ of Hindī.
(Ibid. P. 228 and n. 10.)

(*c*) The Hindī ऐ–औ sounds are identical with the wide ॲ–ऑ of Mār. and Gujarātī, except that they represent a slightly earlier stage, the very same stage of the Mār. and Gujarātī diphthongs as they

> must have been pronounced previous to their transition into the wide vowels, अॅ-ऑ.
> (Ibid, pp. 231-232).

My answer :—

How did ऐ-औ all of a sudden jump into the wide sound, if they were pronounced as pure diphthongs? Evidently Dr. Tessitori has a lurking suspicion that the ऐ-औ in question were not sounded as pure diphthongs, but, fighting shy of the wide sound (अॅ-ऑ), lingered somewhere before the fully developed wide sound. He again regards ऐ-औ as representing this fully developed wide sound. This confusion as to the real nature of the ऐ-औ symbols lands Dr. Tessitori into apparent inconsistencies.

My view is that the Mār. ऐ-औ are poor symbols for the truly wide sound. I prefer, then, to represent this wide sound by the inverted *mātrā* sign (as in अॅ-ऑ), especially as ऐ-औ, as संसृष्ट संधिस्वर, keep the components अ-इ and अ-उ slightly apart from each other, whereas अॅ-ऑ as संकीर्ण संधिस्वर, hold the component अइ, अउ interfused.

10 *The ear-test. Is it to be rejected?*

I have all along contended that the wide sound can only be produced by the अय-अव and the narrow one by अइ-अउ, and for this I appealed to the test supplied by the ear. Dr. Tessitori regards this test as misleading. I hold that in matters of this kind oral tradition and demonstration are essential Dead formulæ and symbols are useless without such demonstration. Live sound must be presented to the ear.

11 *Samprasāraṇa,—what part it plays in the present question.*

In cases like कषपट्टिका—कसवटी-कसउटी-कसोटी and धनतरकं-धणयरउं धणइरउं-धणेरुं, Dr. Tessitori objects to the उ-इ changes (*samprasāraṇa*) on the ground that *samprasāraṇa* is not possible (in O. W. R.) where the व or य is intial. Furthermore, he holds that if the व and य are stressed, there is no *samprasāraṇa* but if unstressed they take *samprasāraṇa*.

My view is opposite. If व—य, or rather the अ thereof, is accented there is *samprasāraṇa*, and if unaccented, *samprasāraṇa* is prevented by the accent being shifted to the pre-

ceding अ (of अय-अव) thus turning the अ of य-व into a द्रुततर अ and consequently dropping it, leaving अय्-अव् as the cause of the wide sound.

The genesis of *samprasāraṇa* in words coming into the vernaculars is this, as I perceive. *Samprasāraṇa* is due to a softening of effort in pronouncing the semi-vowels, it is a liquefaction of these sounds. This is possible when the य्-व् are intervocalic; for the two adjacent vowels provide a vocalic atmosphere and influence. This, as a first step, reduces the strong य-व to weak य-व, and then finally to इ-उ. As Dr. Hoernle in his Introduction to the *Prākrita-Lakṣaṇa* P. XXVII. § 4 happily calls them, the strong य-व are really *semi-consonants* and the weak य-व are semi-vowels. Thus under the intervocalic condition the semi-consonant passes into a semi-vowel and then a vocalic stage.

Thus the conditions for *samprasāraṇa* are :—

(*a*) Intervocalic position of य्-व्;
and (*b*) stress on the अ of य-व.

ध्वनि (Skr.)	धून (G.)
स्वर (Skr.)	सूर (G.)
द्वि (Skr)	दुइ (H.)
व्याक्ति (Skr.)	वीगत (G.)

may at first sight appear to violate this condition as regards intervocalic position of य्-व्. But in these cases a minute स्वरभक्ति steps in first and yields ध्उयनि, स्उवर, द्उवि, व्ईयक्ति as intermediate steps, thus furnishing an intervocalic position for the य् and व्.

12 *Accent and its influence.*

Dr. Tessitori is puzzled at my use of accent. He asks if it is the old Sanskrit accent. It cannot be in the case of Prākrits and vernaculars. Even the old Sanskrit accent was partly pitch and partly stress, no one is as yet decided as to its true nature, and scholars like Beames and Sir R. G. Bhandarkar have used the term " accent" in the sense of "stress" in dealing with the phonology of modern vernaculars. There was therefore no occasion to ask what I meant by the term accent, or to contend that my accent did not fall on the same syllable on which the Sanskrit accent falls.

13 Foreign influence assisting the wide sound.

I have put forward a merely tentative theory that the wide -sound, appearing during the Mogul period of Akbar's rule and intellectual upheavel when Persian and Arabic flourished in India, may have been matured under this indirect foreign influence, as वयण-वंण, कवडी-कांडी answer inherently to the type presented by हयरान, कवल (Arabic-Persian). Dr. Tessitori laughs away this theory, and says that we may as well attribute the Gujarātī and Mārvāḍī wide sound to English influence, because English has this sound in words like 'hat" and "hot".

My answer:—

I have simply stated that the sound was *matured under the indirect influence* of Arabic- Persian. The Arabic-Persian sound is not the wide अ-आ but अय्-अव्. All that I suggest is that वयण-कवडी represent a type that matured into वंण-कांडी under conditions similar to the foreign words typified by हयरान कवल (which in Gujarātī are हॅरान-कॉल). The joke about English influence involves a reversal of cause and effect, for the wide sound began four centuries ago while the English contact is only a century old.

Apabhraṃśa Literature and its Importance to Philology.

By P. D. GUNE.

1 The importance of the Apabhraṃśa language and literature is very great, as that is the stage immediately preceding the modern Aryan vernaculars of India.

2 Apabhraṃśa Literature known to the world of scholars was, until recently, limited to (*a*) the Vikramorvaśī, IVth act, (*b*) the Prākṛta-piṅgalasūtra, (*c*) Hemacandra's Grammar, IV 329 to 446, (*d*) the Kumārapālacarita, verses 14 to 82 only of Canto VIII, (*e*) stray quotations in a few Jain legends and Alaṅkāra works.

3 There has been a considerable addition to our knowledge of Apabhraṅśa literature during recent years :—

(*a*) Printed works :—

I The Bhavisayattakahā of Dhanavāla, edited by the late Mr. C. D. Dalal, in the Gaekwad's Oriental

Series, but not yet published. The whole is in Apabhraṃśa.

II The Kumārapāla-pratibodha of Somaprabha, edited by Muni Jinavijayajī in the same series, but not yet published, contains much Apabhraṃśa, especially in the 5th Prastāva.

III The Upadeśataraṅgiṇī of Ratnamandiragaṇin, edited by Mr. H. B. Shah, Benares, 1911, contains some stray verses and passages in Apabhraṃśa.

IV The Supāsanāhacariyaṃ of Lakṣmaṇagaṇin I and II, edited by Pandit Haragovinda Das Seth, Benares 1918, contains besides stray verses, passages of considerable length at pp. 50, 190, 212, 286, etc.

(*b*) Manuscripts in different libraries :—

I The Sañjamamañjarī of Mahesarasūri, in 35 dohā-verses, complete, No. 1359 of 1886-92 of the Deccan College Mss. at the Bhandarkar Institute.

II The commentary on the above by a pupil of Hemahaṃsasūri. This contains, besides stray quotations, a long story in Apabhraṃśa, corresponding to our Kahāṇī.

III The Tisaṭṭhimahāpurisaguṇālaṅkāra of Pupphadanta, No. 370 of 1879-80 of the Deccan College Mss. at the Bhandarkar Institute, is an incomplete but voluminous work in Apabhraṃśa, folios 304. It throws additional light on Apabhrṃśa grammar, idiom and metre.

IV There is a lot of Apabhraṃśa Mss. at the Patan Bhandar mentioned by the late Mr. Dalal in his paper read before the Gujarāt Sāhitya Pariṣad (pp. 11 to 19). Of about fifty Mss. that Mr. Dalal has mentioned, only some three or four are of some considerable size.

(*a*) The Ārādhanā of Nayanandin, a Digambara Jain, folios 18.

(*b*) The Paramātmaprakāśa of Yogīndradeva, also a Digambara, folios 19.

(*c*) The Vāirasāmicariya of Varadatta, in two sandhis, with twelve and nine stanzas in each respectively.

(*d*) The Paümasiricariya of Dhāhala in four sandhis. Most of the others are of the nature of rāsaka, and contain either praises or lives of Jaina saints.

4 The importance of this literature :—

I As parent of some of the modern vernaculars, especially of the Gujarātī and the Rājasthānī. Some points of close similarity like—*u* of the neuter nom. sing.,—*ā* of the nom. plural, the pronoun, the diminutive in *ḍā* etc.

II As containing a lot of deśī words, which throw a flood of light on the vocabulary of the modern Aryan vernaculars.

III As showing the richness and flexibility of Apabhraṃśa Grammar such as is not gathered from a perusal of mere Hemacandra.

The Dialects of Burmese. *By* L. F. TAYLOR.

Three different families of languages are to be found in Burma, viz : the Tibeto-Burman, the Tai-Chinese and the Mon-Khmer. The present investigation is confined to a comparison of nine dialects belonging to the Burma group of the Tibeto-Burman languages. The dialects are (i) Burmese, which is the lingua franca of the Province, (ii) Arakanese, which resembles in pronunciation to the Burmese of a thousand years ago, (iii) Tavoyan, which is supposed to be an off-shoot from Arakanese, (iv) Intha, which is supposed to be an off-shoot from Tavoyan, (v) Danu, which is less archaic than Arakanese, (vi) Yaw, which is the dialect most resembling modern Burmese, (vii) and (viii) Two dialects of Hpon, which retain some very archaic features, though the language is on the verge of extinction, and (ix) Tanugyo, another dialect which retains archaic features, though it has undergone phonetic decay.

Comparison shows that in syntax, grammar, idiom and vocabulary, these dialects are practically identical. It follows, then, that the essential part of our investigation will be a study of the phonetic changes that words undergo as they pass from one dialect to another.

For this purpose tables have been constructed which show (i) the elementary sounds which are found in each dialect and in the group as a whole, also the various combinations which occur and (ii) the phonetic changes that occur, first in the initial, and secondly in the middle and final parts of words.

Finally the suggestion is thrown out that Burmese, though now a monosyllabic language, was once disyllabic or polysyllabic, and in the structure it was perhaps similar to Indonesian. It is submitted that we now possess evidence which, though it is quite insufficient to amount to proof, is sufficient to make this hypothesis worthy of consideration.

The Importance of Philology for modern languages. *By* J. M. UNWALA.

1 The descent of the Modern Indian languages of the Aryan Stock and their sister-languages in Asia and Europe from their common parent, the so-called Indo-Germanic or Indo-European language, shown by a geneological tree.

2 The Home of the Indo-Germans lay in the Carpathian mountain-ranges.

3 The rise of different dialects from one common language and the development and fossilisation of these dialects in the course of generations into separate languages

(1) due to natural barriers, like mountains and rivers between two regions or countries;

(2) due to mannerisms of a person, used by him while speaking his mother-language;

(3) due to analogy in word-formation, etc.

4 The importance of philology :—

(1) it proves that the so-called exceptions in the grammar of any language whatsoever are analogical formations or no exceptions at all;

(2) it shows the common relation between languages of the same stock, howsoever different in external features they may be;

(3) it simplifies grammar by bringing the so-called exceptions under hard and fast rules;

(4) it throws indirectly much important light on the question of the history of civilisation and culture of the people, whose language it deals with ;

(5) it helps us also to discover the fossil remains of some dead languages preserved in a language, which we are subjecting to a comparative study.

5 Philology is studied more in Germany than anywhere else in Europe, except lately in France, since the time of Francis Bopp (1719–1867), the father of Philology.

6 What has been said above on the importance of Philology in general is also applicable to the modern Indian languages.

7 The necessity of a comparative grammar of the modern Indian languages worked out on the principles of Philology. A preliminary work or works are, however, required *viz.* grammars of Gujarātī, Marāṭhī, Bengali, and other modern Indian languanges of the Aryan stock written on the basis of Philology, wherein chief stress is laid on the comparison of one of these languages with Sanskrit or Prakrit dialects. Intermediate works already done by German savants, Jacobi Pischel and Kuhn, *viz.* Comparative Grammar of the Parkrit dialects and Pali.

8 Such a comparative grammar is also necessary for the languages of the Dravidian stock. But here we have to reconstruct, by comparing these languages with one another, the once spoken ancient Dravidian language, which has died out without leaving behind it any written record whatsoever.

V.—Classical Literature.

Śakuntalā—An Allegory. *By* N. S. ADHIKARI.

Allegorical instinct is inherent in man. Allegories are of three types: (1) Prosaic or Rational or Conscious; (2) Emotional or Poetic or Sub-or un-conscious; and (3) Mixed. Kālidāsa introduced a change in the character of Duṣyanta of the Mahābhārata, under the operation of a subconscious cause and produced a consistent allegory. Objections to this allegorical interpretation, viz. (i) that any book can be interpreted allegorically; and (ii) that Duṣyanta represents Love, are perfectly untenable, and the splendid ancestry of allegories which Kālidāsa had behind him must have had their own effect upon him, who improved on them, and who was not creating any new ways in literature when he wrote the subconscious allegory.

The Relation of Śūdraka's Mṛcchakaṭika to the Cārudatta of Bhāsa. *By* S. K. BELVALKAR.

After proving from internal evidence that the author of the Cārudatta intended to write more than the extant four Acts of the play, the essay considers and refutes the *prima facie* view that the Cārudatta is an abridgment for purposes of stage representation of the lengthier Mṛcchakaṭika. The argument involves a critical comparison of a large number of parallel passages from the two plays mainly from the point of view of dramaturgy, an evolution of the two plays from the aesthetic point of view being purposely ignored as not being capable of yielding certain results acceptable to all. Next, assuming that the Cārudatta is the earlier play elaborated by Śūdraka, an attempt is made to discover the dramatic motives underlying the additions, which have been ascertained to be (i) an exhibition of the author's knowledge and familiarity with highly technical and out of the way Śāstras; (ii) an introduction of low-life realism; (iii) the addition of the political bye-plot; and (iv) an appeal to the gallery by means of broad and rollicking humour. And as

these motives are natural motives consistently presented throughout the play, the priority of Bhāsa to Śūdraka is declared to be the most natural and the only possible conclusion to hold. That this conclusion is not without some bearing upon the date of Bhāsa is only hinted at towards the end of the paper.

Kālidāsa and the Gupta Kings. *By* H. B. BHIDE.

The following are the points sought to be established in the paper.

1 Originally the Raghuvaṁśa comprised only the first fifteen Sargas.

2 The Solar kings described therein represent the Gupta Kings as indicated below :—

Dilīpa—represents	Candragupta.
Raghu ,,	Samudragupta.
Aja ,,	Candragupta.
Daśaratha ,,	Kumāragupta.
Rāma ,,	Skandagupta.

3 In the Vikramorvaśīya, in the first Act at least, Purūravas stands for or is meant to suggest Skandagupta.

4 Lastly, therefore, Kālidāsa was a contemporary, perhaps elderly contemporary, of Skandagupta.

5 The points of resemblance between the exploits of Raghu and Samudragupta and of Rāma and Skandagupta are more striking than in the case of the remaining kings.

Psychological Study of Kālidāsa's Upamās. *By* P. K. GODE.

I *The purpose of the Essay*:—To take a critical survey of Kālidāsa's "Upamās" so as to unfold in detail the workings of his faculty for noting comparisons: literary issues of the problem not altogether ignored: Kālidāsa's keen aesthetic sense, his penetrating intellect, his wide range of observation etc., determined tentatively.

II *'Upamā' in the broadest sense of the term*:—The technical divisions of 'Upamā' as given in the Indian works on Rhetoric, not followed as they are psychologically too water-tight to admit all the comparisons. Maxims included under "Upamās".

III *Enquiry, based on the Śakuntalā only*:—The analytical and inductive method requires the limitation of the field of study. The Śakuntalā being a drama is truer to life than Kālidāsa's other Kāvyas. It gives a variety of comparisons. Other Kāvyas give variety but exaggerate the picture of human life they give.

IV *Some psychological side-light*:—Locke's statement 'Brutes compare but imperfectly', endorsed by almost all the psychologists. The presence of the faculty for noting comparisons in a greater or less degree implies greater or less intellectual activity.

V *Some illustrations from literature*:—From Sir R. Tagore, Carlyle, Prof. Walter Raleigh etc. Metaphorical employment of words gives a brilliant and fascinating aspect to literature.

VI *Metaphorical vitality of words*:—Metaphorical employment of words, which is the operation of the faculty for noting comparisons, is the very soul of language—some illustrations.

VII *An estimate of the comparisons in the Śakuntalā and an attempted interpretation of the same*:—Total number of comparisons is about 180. In acts where there is no "criticism of life" there is a rarity of comparisons since the narrative element preponderates in them. An objective attitude of mind is capable of producing comparisons. Comparisons are the outcome mainly of the poet's head.

VIII *Comparisons a psychological test and the limits thereof*:—In a lyrical piece of composition there would be a paucity of comparisons but the converse of the statement is not true. A drama written by a mastermind will abound in comparisons.

IX *Classification of Comparisons according to their sources*:—'The sources of similitudes are co-extensive with the world of knowledge'. By taking a survey of them we get

at the poet's knowledge of men and things; in fact we determine his range of observation. Kālidāsa had a seeing eye and an inquiring mind.

X *Sources of Comparisons* :—(1) *Heavens*—the various aspects of the *sun* and the *moon*—constellations—eclipses etc. (2) *Earth.*—Phenomena of the sky: lightning, wind, clouds, rain etc. Ocean, rivers etc. Mountains, wells etc. Mineral world: gems. (3) *Life—The Plant Life* : *Creepers* : Śamī, Mādhavī, Atimuktalatā, Navamālikā, Vanajyotsnā. *Flowers* : Kunda, lotus, lotus leaves, pollen of lotuses, day-lotuses and night-lotuses. *Trees* : Foliage of trees, branches of trees etc. *Particular Trees* : Sahakāra, Kesara, Candana, Sugarcane, Reeds etc. *Agriculture. Animal Life*—Affections of the animal body, diseases etc. *Particular beasts* : Deer, male and female, wild elephant, tiger, serpent, etc. *Birds* etc.—locusts; cuckoo, cakravāka, male and female; bee male and female; flies. (4) *Domestic Life*—Eatables: dates tamarind, honey etc. Fire, lamp; water, parasol, miror, ornament, flag etc. Wealth, deposit of money etc. *Family relations*--conjugal love, parental affection, fraternal affection. (5) *Social Life*--Hospitality, polite behavour, friendship, villainy—a city thronged with people etc. Military life, hunting and other sports etc. (6) *Religious Life*—practical and theoretical side of religion, doctrines of Karma and Mokṣa. (7) *Mythology and other literature*—Śiva; Lakṣmī; Triśaṅku; Yayāti and Śarmiṣṭhā: celestial nymphs; Śeṣa; Kālakūṭa; Manes of ancestors; Amṛta; Indra, Jayanta and Paulomī; Nṛsimha etc. (8) *Fine Arts*—Painting and Music. (9) *Mental States*—Deranged condition of mind; Mental illusions etc. (10) *Abstract World*—Personified abstractions as standards of comparisons—other abstract comparisons. (11) *Conventions, poetic and otherwise*—a few illusrations.

XI *Some General Conclusions* :—

1 Kālidāsa's intellect was truly comprehensive.

2 His knowledge of Nature, quite first-hand.

3 His skill in word-painting.

4 He drew no line of demarcation between Nature and Man.

5 Imaginative Comparisions, Utpreksās.

6 Intellectual and Emotional Comparisons.

7 Conventional ideas turned to good account.

8 An objection.

9 Aptness of Kālidāsa's Comparisons.
other qualities of comparisons such as novelty, variety etc.

10 No "long-tailed" Comparisons in Kālidāsa. His Comparisons are direct and there is a freedom of spirit about them.

Indian Aesthetics. *By* M. HIRIYANNA.

The field of ancient Indian Aesthetics remains unexplored and vague notions are current regarding the Indian conception of Beauty in Nature and in Art. The numerous works in Sanskrit on Poetics furnish sufficient material for deducing the Indian aesthetic theory and show that its evolution closely followed that of general philosophic speculation.

2 The Indian conception of the Beautiful was influenced mainly by :—

(i) The *Ātman* doctrine of *Upaniṣads* which inculcates that the world of sense equally with the world of thought is but an imperfect expression of the ultimate Reality; but is yet adequate, if rightly approached, to reveal the underlying unity.

(ii) The *Jīvanmukti* ideal which, by recommending, not the repression of interests but an expansion of them, gave prominence to the culture of the emotions in the achievement of true freedom.

3 The writers on Poetics from whom the material for the paper is drawn may be divided into two schools :—

(i) The *prācīna* school which confined its attention practically to an analysis not of what constitutes the essence of poetry but only of its outer form.

(ii) The *navīna* school which concentrated its attention on the *vyaṅgyārtha* or 'implicit sense', which

as distinguished from the *vācyārtha* or 'explicit sense' constitutes the essence of all first-rate poetry. In revealing the poetic ultimate, word and explicit sense serve the same purpose as the passing things of experience do in revealing the underlying reality of the universe. This is the theory of poetry corresponding to the doctrine of *ātman*.

4 Of the three varieties of the implicit sense *vastu*, *alaṅkāra* and *rasa*, the last was specially emphasised for the sake of the emotional culture required by the *Jīvanmukti* ideal. This emphasis finds expression in the statement that *rasa* is the *ātman* of poetry. The term *rasa* has got an objective as well as a subjective reference and means not only aesthetic delight but also sentiments like 'love' whose treatment by the artist affords such delight.

5 The theory of *rasa* having become the recognized basis of Indian aesthetics, each system of philosophy interpreted it in the light of its own fundamental principles. The *Vedānta* ahd *Sāṅkhya* interpretations, which are the most important, are as follows :—

(i) *Vedānta:*—The term *ānanda* furnishes the clue to the Vedantic theory of *rasa*. Joy or bliss is the intrinsic nature of the self, that being the significance of describing the *ālman* as *ānanda*. If its intrinsic character is not always manifest, it is because desire veils it. When this veil is stripped off, no matter how, the real nature of *ātman* asserts itself and we feel the happiness that is all our own. The immediate aim of art being pure delight (*Saayah-para-nirvṛti*) the artist has to induce an attitude of detachment and he does it by means of the ideal creations of his art. The particular forms he creates are determined by the other aim of art, *viz.*, the refinement of our emotional nature. Being products of fancy these forms cannot awaken desire ; and when attention is once concentrated upon them, the ordinary state of tension caused by selfish desires is relaxed and joy ensues as a matter of course.

(ii) *Sāṅkhya* :—According to *Sāṅkhya*, on the other hand, *Puruṣa* has as little to do with pleasure as with pain. Pleasure and pain arise from the interaction between the two spheres of *prakṛtic* development—*buddhi* and the objective world—and *Puruṣa* stands by only as an onlooker. The Common view that he is affected by either is due to a mistaken identification of *buddhi* with *Puruṣa*. This mistake can not be avoided until the two are dissociated—i. e. until *jīvanmukti* is reached. So far as empirical life is concerned, individual purpose or selfish desire is ineradicable; and the ordinary man must take pain with pleasure. But, though he cannot dissociate himself from *buddhi*, he can by resorting to art find a temporary release from the natural world, the second of the two factors contributing to the misery of common existence. The artist's function is thus to lead us away from the real world into another not constituted of the three *guṇas*. The details of the new surroundings he creates for us are determined by the other aim of art, *viz.*, the refinement of our emotional nature. This view of Sāṅkhya art is found represented in Sanskrit Poetics as that of Bhaṭṭa-Nāyaka.

6. Thus according to optimistic Vedānta, pain is due to misapprehension and pure delight may be derived as much from Nature as from Art. According to pessimistic Sāṅkhya, pleasure untainted by Sorrow does not exist in the real world and has therefore to be sought outside it. Aesthetic delight according to idealistic Vedānta is due to a forgetting of our narrow Selves; while according to realistic Sāṅkhya it is due to an escape from common world. Art, according to the one, reveals the truth of Nature; according to the other, it fashions something better than Nature.

7. Thus according to optimistic Vedānta, everything in Nature is beautiful and ugliness is due to misapprehension. According to pessimistic Sāṅkhya ugliness is as real as beauty and both are found in Nature. Aesthetic delight

according to idealistic Vedānta is due to transcending the narrow self; while according to the realistic Sāṅkhya, it is due to escaping from the natural world. Art according to the one reveals the truth of Nature; according to the other, it fashions something better than Nature.

Kālidāsa and Music. *By* Sardar G. N. MUJUMDAR,

The chief object of the essay is to show how far Kālidāsa had the practical and theoretical knowledge of music in its three aspects *viz*:—vocal and instrumental music and dancing.

Kālidāsa's possession of a good musical ear and a knowledge of the so-called *rāgas* of the Indian music can be evidenced from two works. The necessary stages in the practice of music have been referred to by him. He notes the songs or airs composed and to be chanted. We also learn from his works that the performance of vocal music must have the accompaniment of a drum and a stringed or wind instrument. He appears to be well-versed in instrumental music and discloses a wide knowledge of the principles of *nṛtya* and *nāṭya*. Kālidāsa gives sporadic indications of his study of the theory of music.

The chief points to be noted here are, (1) that the threefold connotation of the term *saṁgīta* does not occur in *Bharata's Nāṭyaśāstra*, while in Kālidāsa's works it is very common; and (2) that the *rāgas* had already been formed and were, therefore, in vogue in the time of Kālidāsa, which *Bharata* does not make mention of.

Meanings of technical words and a list of original *vastus* occurring in his works have been appended.

Kālidāsa and Candragupta II. *By* S. RAY.

Current Theory. References to Candragupta II. Reference to Hun settlement in Bactria. Hence Kālidāsa was the court poet of Candragupta II in the 5th century A. D.

Refutation. References to Candragupta II not proved. Similar references abound in the Vedas, the *Rāmāyaṅa*, the *Mahābhārata* etc. Admission of reference leads to undesirable conclusions. No reference to Bactria. Bāhlīka is north Punjab, not Bactria. Vaṅkṣu is Sindhu not Oxus. Huns still to the north of India in Kālidāsa's time. Current theory contradicted by the Mālavikāgnimitra. Kālidāsa the court poet of Agnimitra.

Kauṭilya and Kālidāsa. *By* H. A. SHAH.

The article is too demonstrative to admit a summary without one's missing the trend of arguments leading to certain conclusions. Roughly, it may be said that attention is drawn to important parallelism of thoughts (and of language also) met within the works of Kauṭilya and Kālidāsa.

Subjects selected and treated are (1) Hunting, (2) Diseased and new kings, (3) High Priest, (4) Use of technical terms.

To take them up in a reverse order and summarize the results :

Technical terms show crystallisation of thinking and so far, the instance given points out how in the works of Kauṭilya and Kālidāsa, the same way of expression and getting at the things are met with.

The position of the High Priest, the estimation in which he is held and his functions (as seen in the Arthaśāstra and Raghuvaṃśa) are all according to Kauṭilya. All the references are supplied for one's guidance.

About diseased kings: Notions of Kālidāsa run in line with those of Kauṭilya who has expressed them against the opinion of a politician named Bhāradvāja.

As regards new kings: The arguments of Kauṭilya are discussed in connection with the fate of a new king described in the Mālavikāgnimitra.

With regard to Hunting : All the references with quotations are given so that there may be no possibility of mis-

understanding the point. Passages from works of other authors are cited for a contrast and to make it easy, to get at a clear idea on the subject as understood and developed by Kālidāsa. Contribution of Kauṭilya lies in the revision he makes and innovations he introduces or in his recognition of them in the law book. Of that very nature is the contribution of Kālidāsa. That fact is pointed out at length in the parallels given. Hypothesis is then put forward that both Kauṭilya and Kālidāsa belong to one age.

Some of the ideas on the subject (i. e. hunting) found in the Arthaśāstra proceed from Kauṭilya and from nobody else. As the language and development of arguments of Kālidāsa are found to be as fresh as those of Kauṭilya, it is suggested that very likely they are one and the same individual.

By the by, the source for the date of Puṣyamitra is passingly discussed.

The Text of the Śakuntalā. *By* B. K. THAKORE.

1 Our manuscript authorities for this play are all comparatively modern. They fall into four or at least three families. They yield three or at least two versions, the differences between which are numerous and important. But the Śakuntalā is a play that belongs to world-literature. As the world progresses in culture the number of non-Sanskritists studying it as the best product of ancient Indian drama, is rapidly on the increase, and in Kālidāsa we have a dramatist of perfect art and transcendent genius. Cultured humanity cannot tolerate three divergent Śakuntalās or even two. Nor is it necessary. This essay attempts to show that in many cases it discusses, we can select out of the divergencies presented by our authorities that reading and that arrangement of speeches which in the light of dramatic criticism is demonstrably the best.

2 Act V from the beginning up to the entry of Śakuntalā and her party. The Devanāgarī version is here the best.

3 Act III from *ubhe : ṇivvudā mha* to the end.

Here also the Devanāgarī version the best. The dramatic construction of Act III considered.

4 (1) Act VI the minister's memorandum.

The versions in which the King reads out the memorandum *verbatim* inferior; the others in which he only gives a summary of it are the best.

(2,3) Act I from *ido ido sahīo* to *sarvā rājānam dṛṣṭvā kiñcidiva sambhrāntāḥ.*

Here again the Devanāgarī version the best.

(4) Act V The verse *na tiryag* and the prose sentence introducing it should be omitted. The speech *bhadre prathitam* should be assigned to the Purohita.

(5) A draft translation is offered of the Praveśaka preceding Act VII, which is to be found only in the Kāśmīrī version. A play on the stage a rich and veried feast of all the fine arts. But the acceptance of this Praveśaka into the body of the text is shown to be impossible.

5 (1) Act I, the king's approach to the hermitage.

Both verses should be kept; the charioteer's remark should be placed between them.

The geography of hermitage and the marginal *upavana* between it and the primeval forest.

(2) Beginning of Act IV.

All four verses should be kept, and in the Bengali order. Tune-analysis of the first four Acts.

(3) Beginning of Act III.

All the eight verses from *Jāne* to *abhyunnatā* should be kept; at the most *vṛthaiva* the 5th might be omitted, although there is no clear reason even for that. The dramatic construction of Act III further considered.

(4) Act VI After *asmātparam* the speeches of the apsaras, ceṭī and the King (this last including the verse *āmūla* follow in the Bengali and Kāś-

mīrī versions, and it is at the end of this last verse that the King swoons. These speeches should be kept.

(5) Śakuntalā's *ātmagata* speech (Act III immediately after the king's inquiry about Śakuntalā's health and Priyaṁvadā's reply) should be kept.

6 (1) Act I When the maidens draw their own conclusion from the signet-ring, the king's speech should be:—

अलमन्यथा संभाव्य । राज्ञः परिग्रहोऽयम् ।

and not the longer to be found in the Devanāgarī version.

(2) Act II In the first verse the end of the first half should be :—तद्भाविदर्शनायासि.

(3) Act IX Anasūyā's first speech should be:—

एव्वं णाम विसअपरंमुहस्स जणस्स ण एदेण विदिअं जधा तेण ग्णा सउन्दलाए अंणज्जं आअरिदं त्ति ।

(4) Act IV Anasūyā's second speech.

The Kāśmīrī version with only the word *pahāsa* changed to *pavāsa* the best. Thus it would be read:—

अध वा दुक्खसीले तवस्सिअणे को अब्भत्थीअदु । ण सहिगमणेण दोसो त्ति ववसिदं । दाणिं पारेह्म । पवासणिव्वुत्तस्स तादकस्सवस्स दुस्सन्तपरिणीदं आवण्णसत्तं को वि सउन्तलं णिवेदइस्सदि ।

Textual criticism an indispensable part or limb but only a part or limb of literary criticism in the widest, deepest, hightest and truest sense.

(5) Act V In the much descussed verse किं कृतकार्यद्वेषो °, ° द्वेषा धर्मं प्रति विमुखता राज्ञ : is the best reading.

(6) Act VI In the Preveśaka the following words to be found in the Bengali and Kāśmīrī versions—

श्यालः सिग्घं सिग्घं एदं (इत्यर्धोक्ते)
धीवरकः हा इरे ह्मि । (इति विषादं नाटयति)
श्यालः मुञ्चेध रे णं ।

should be kept.

(7) Act VI In *kāryā saikata* read *camara* for *hariṇa* as the Bengali and Kāśmīrī versions.

(8) Act VI After the king's proclamation read

° अहिंणंदिदं महाजणेण ° as in the Bengali and Kāśmīrī versions.

Note 10 Act II नैतच्चित्रं—read समितिषु सुराः or सुरसमितयः

(9) Act VI. For the concluding speech of the *apsaras* the Kāśmīrī version is the best.

(10) Act VII. At the entry into the hermitage of Marīci read as beginning of Mātali's speech, समययांत्रितोयमास्ते रथः

Many other instances could be given in which free use of our materials and a consideration of the drama as a whole and in each of its parts as work of art conceived and elaborated by genius, could enable us to pick out from amongst the variants or in a very few exceptional cases even piece together a reading, dramatically the best; a reading about which, Kālidāsa being Kā;idāsa, we can draw the further inference that it is Kālidāsa's original reading about any of the other variants. And thus out of the Bengali, Devanāgarī and Kāsmīrī Śakuntalā's which textual criticism gives us and beyond which mere textual criticism can never hope to advance, we can perhaps reconstruct the play as Kālidāsa wrote it.

VI.—Persian and Arabic.

Okhāharaṇa in the Shahnameh. *By* P. B. DESAI.

The Mahābhārata and the Shahnameh are the two most well-known epics of India and Persia. Peoples of both countries had close intercourse from ancient times. They were the last of the Aryan races to separate from the Central Asian Home. The Aryans had many myths and legends, the most innocently lovely was the sun and dawn myth.

Many stories have been composed in many lands in imitation of that myth, one of them being the love-story of Okhā and Aniruddha in the 19th Parva of the Mahābhārata. There is a story of Bizhan and Manizheh in the Shahnameh which seems to be a copy of that Mahābhārata story in Persian verse.

The points of comparison are enumerated and discussed in the paper. It is the opinion of some mythologists that most of the Aryan myths and stories have common origin and have independent growth. The writer of the paper tries to prove that the story of Bizhan and Manizheh was a glaring instance of "conscious borrowing" or was directly imported into Persia from India.

There are more than one stories in the Shahnameh which seem to be borrowed from the Mahābhārata, Rāmāyaṇa etc.

King Akbar and the Persian Translations from Sanskrit. *By* J. J. Modi.

The object of the paper is to present a brief account of the attempts of King Akbar to get some important Sanskrit books translated into Persian. Our sources of information are the Āīn-i-Akbari of Abul Fazl and the Muntakhab-ut-Tawārikh of Badaoni. It seems, that Sanskrit was learnt by Persians, now and then, long before Akbar's time. We know, that the Pahlavi book which was the source of the Persian

Calila and Damna, was a rendering of an Indian book in the time of Chosroes I (Noshirwan the Just), who had close relations with India. The time of Calif Haroun Al Rashid is spoken of as the " golden age " in Mahomedan history, and that of his famous son Al Mamoun as the "Augustan age" of Arabic literature. Al Mamoun held, like Akbar, some religious conferences at his court. The Pahlavi Gajask-i-Abālish is a result of one of such conferences where Indian scholarsh also must be present. The Indian medical works of Caraka and Suśruta had been rendered into Arabic. It is said, that two Hindu doctors held the position of court physicians at the court of Harun Al Rashid. Elliot gives us an interesting chapter on the knowledge of Sanskrit by Mahomedans before Akbar's time. According to Ferishta, Feroze Taghlak had got translated into Persian some Sanskrit works out of about 1300 he found in a Hindu temple at Nagarkote in the Kangra Valley, which he conquered and which is known as that of the Jwālā-mukhī (volcanic) on account of a constantly burning subterranean flame. The celebrated Persian poet Amir Khushro had supplied some materials for thought to Persians of literary taste, like those at the court of Akbar, in his Nuh Sepehr (Nine Spheres), wherein, in his third sphere, he spoke of Indian languages and especially of Sanskrit.

Akbar, as a boy, was truant and his father had to rebuke him mildly for his illiteracy. But, as a King, he grew up to be one of the best kings of India, and his court was, as it were, " une veritable académie ". He had founded a large royal library, books from which were regularly read to him by different readers (*khānandah*). He got books translated from Greek(yunāni), Arabic and Sanskrit. Among the Sanskrit books, so translated, we find the following: Kishan Joshi; the Gangādhar; the Mohesh Mahanand; the Mahābhārata under the name of Razm-namah i. e. the Book of Wars ; the Rāmāyaṇa, said to be "a book of ancient Hindustan, which contains the life of Rāmacandra, but is full of interesting points of philosophy": At'harban (the Atharva Veda); the Līlawati, said to be " one of the most excellent works written by Indian mathematicians on arithmetic ".; Haribans, (Harivaṁśa) a book containing the life of Krisṇa; Nal va

Daman (Nala Damayantī); Singhasan Battisi; and Jog Basishta (Yoga Vāśishta). The translations of some of these were entrusted jointly to more than one scholar, among whom we see the names of well-known scholars of the times, likeA bul Fazl, Faizi, Badaoni, and Nakib Khan.

I produce before the conference, for inspection, three Mss of these translations. Two of these are of the Mahābhārata, and one, of the Jog-Basisht, which is mentioned neither by Abul Fazl nor by Badaoni but by a Hindu writer of Persian, Hari Charan Das, in his Chahar Gulzar Shujai, as mentioned by Elliot.

Abul Fazul speaks of the Mahābhārata as one of the ancient books of Hindustan containing nearly 100000 verses. He says, that though there are in it many extravagant tales, yet "it affords many instructive moral observations and is an ample record of felicitous experience." The recital of its concluding portion known as Harivaṁśa, was a cure to sterility. Abul Fazul, who was, as it were, the Sir William Hunter of Akbar's Court, has given in his Ain-i-Akbari, the Gazetteer of Akbar's time, a long account of the contents of the Mahābhārata. According to Badaoni, some attributed to it an antiquity of 4000 years, and some, of 80000 years. The idea of getting the book translated came to Akbar as if with a flash of thought, when he was hearing the reading of some Persian books, which, he said, were, after all, results of poetic imagination. He took the Hindu books to be such as were written by "holy and staid sages" and "were all clear and convincing proofs and which were the very pivot on which all their religion and faith and holiness turned......They are by no means trite but quite fresh and they will produce all kinds of fruits of felicity, both temporal and spiritual." With thoughts like these, he at once ordered a translation. Three court-scholars were at first entrusted with the work and a number of learned Brahmins were asked to interpret and help. For the first few nights, Akbar himself took an active part in the work. He heard the interpretations of the Brahmins, and explained what they said to one of the translators, Nakib Khan. In all, the names of six scholars are associated with the Mahābhārata. To Badaoni, one of the translators, who

was one of the most bigoted Mahomedans, the translation of a non Moslem religious book was a work of sin, and Akbar, at one time suspecting that he at times let his bigotry creep into the translation, went to the extent of calling him *harāmkhor* (one earning his livelihood unlawfully). Akbar seemed to believe in the transmigration of souls, and so, it was the translation of a passage referring to the theory of Karma that led to this rebuke. The translation when completed was illustrated with paintings, the art of which flourished at Akbar's Court.

Now an important question is: Are the Persian translations of Sanskrit books literal faithful translations or more or less, paraphrases, or very free renderings or summing-ups. It seems, that however learned the scholars of Akbar's court were, they were not very proficient in Sanskrit. It is likely, that all the translators knew some Sanskrit, but that was not enough. They had with them a number of learned Brahmins to assist them as interpretors. Notwithstanding their assistance, their Persian translations are not, what we now understand to be, faithful translations from the original. Unfortunately, I cannot compare directly the Sanskrit of the Mahābhārata with the Persian, but, with the help of Mr. P. C. Ray's translation, I have compared as typical examples, the first sections of the first two *parvas*, and find, that they are very free renderings with omissions here and there, but not translations. To enable my readers to judge for themselves, I give at the end of the paper, the original Sanskrit, Mr. Ray's translation, the Persian text and my own translation of the first section of the second *parva*, the Sabhāparva. For the Persian text and my translation, I have followed an old Persian manuscript of the Mullan Firuz Library in the K. R. Cama Institute. It is written in the Shikasta style. It was latterly, well nigh at the end of my study for this paper, that I got a better-written copy from the B. B. R. A. Society. I give at the end the Persian text from that Ms. also, to enable one to judge of the translation.

The unknown Yā in Persian. *By* SHAIKH ABDUL KADAR SARFRAZ.

The Paper is divided into two parts.

Part I :—(1) Prevailing misunderstanding amongst Persian scholars as regards the pronunciation of those words in which the majhūlāt letters occur ;

(2) The two ways in which these words are generally pronounced : (*a*) the Persian and (*b*) the Indian ;

(3) The Persian pronunciation is invariably regarded as the only correct one and the Indian is generally condemned as wrong and un-Persian ;

(4) The writer's opinion :—

(*a*) that the socalled Indian pronunciation is not at all Indian ;

(*b*) that it is purely and properly Persian ;

(*c*) that under certain circumstances it is scientifically more correct ;

(*d*) that the modern Persian pronunciation, appears, in a sense, as degenerate as it is foreign to Persian ;

(5) To prove this, four arguments have been advanced :

(*a*) arguments based on signification of terms ;

(*b*) argument based on historical and philological evidence ;

(*c*) argument based on testimony of standard Persian poets ;

Part II :—(6) The nature of "Yā-e-majhūl".

(7) Its principal varieties ;

(8) A list of useful words containing the "Yā-ē-majhūl."

VII.—Dravidian.

Dravidiain Tense-suffixes. *By* R. SWAMINATHA AIYAR.

I Introductory.

1 The views put forward in this paper and the suggested inferences therefrom are at variance with the present theory in regard to the Dravidian Languages. The paper should not be regarded as propounding any considered theory but only as furnishing materials for a fresh consideration of the subject.

2 Caldwell's theory was that the Dravidians were not an autochthonous Indian people but were immigrants speaking a Turanian language, who entered by the north-west passes; he was of opinion that the Dravidian languages had a few Indo-European grammatical affinities acquired by contiguity in the remote pre-historic past, but that their grammatical structure was essentially different and that they should be affiliated to the Turanian family.

3 The Authors of the Linguistic Survey of India are of opinion that the Dravidian is an isolated family of languages, that all attempts to connect them with other linguistic families outside India are regarded as failures, as also attempts to establish a closer relationship with the Indo-European family. They mention several particulars in which the Dravidian languages are supposed to have influenced Aryan inflection.

II Alleged influence of the Dravidian Languages on Aryan Inflection.

1 The replacement in Classical Sanskrit of verbal tenses by participles generally, and the increasing use of conjunctive participles in subordinate sentences. The reply to this is that the participles which the Aryan languages are said to have imitated are formed after the Aryan model and with Aryan materials, as will appear in the course of this paper.

2 It is stated in the Linguistic Survey that the periphrastic future in Sanskrit is based on the Dravidian model. It

is overlooked here that there was a periphrastic future in the Avesta. Indo-Germanic philologists carry back the origin of such formations to the pre-ethnic period.

3 It is stated that the active past participle *kṛtavant* is based on the Tamil model *seydavan.* Here also the Avestic parallel is overlooked; the form *kṛtavant* has its roots in the Indo-Iranian period. If the various forms which the masculine nominative singular of the demonstrative pronoun assumes in the Dravidian languages be examined, it turns out that such Dravidian language imitates the Aryan present participle with which it is most familiar. Tamil *avan* imitates the Vedic *bharan*; the Badaga and the old Kanarese *avam* imitates the Māgadhī *bharam;* the Telugu *vandu* and Madras Goṇḍi *ondu* imitates Vararuci's *bharanto* very common in Pali; the Kui Eanju imitates the Avestic form *barās.* Further, it also appears that the Dravidian declension in *n* for names of rational beings and the declension in *t* for the names of irrational things correspond to the masculine *bharan* and the neuter *bharat*; while many Dravidian case postpositions are merely loans from Prakrit.

4 In the last two instances, Dravidian forms which must have come into existence within the last 2500 years are stated to have served as models to forms which are at least 5000 years old. In order to ascertain the relative antiquity of forms we should know what forms were in use in the earliest stage of the development of Dravidian languages, what changes have taken place in them since then, and how these changes have been brought about. It is also necessary to know what were the Aryan vernaculars spoken in India, prior to and about the beginning of the Christian Era.

III Old Aryan Vernaculars.

1 The antiquity of the Vedic dialects. Thibaut's estimate of 1200 B. C., Jacobi-Tilak's estimate of 4000 B. C., MacDonell's estimate of 800 B. C. Grierson's estimate of 2000 B. C. adopted as a working hypothesis.

2 Indo-Iranian period taken as 2500 to 3000 B. C.

3 *Prakritic dialects.*—The earliest specimens of Pra-

kritic language in the Aśoka inscriptions of 250 B. C. Four points noted :—

(1) The extensive use of causal formations with the interposed *p*.

(2) The corrupt pronunciation of the Sanskrit conjunct consonant *tv* as *tp*.

(3) The use of the so-called adverbial present participle.

(4) The absolute indifference to the final vowel in many cases in the inscriptions.

4 Pallava Prakrit inscriptions of the early Christian Centuries in the Telugu countries. The use of the Prakritic future in—*ejja*, and of the conjunctive participles in—*tūṇa* and *tūṇam*.

5 Vararuci's Prākṛtaprakāśa, 1st Century B. C. Literature in the Māhārāṣṭrī Prakrit,—Kaccāyana's Pāli grammar. Buddhist canonical works.

6 *Caṇḍa's Prākritalakṣaṇam*.-The tradition in regard to the redaction of the canonical works of the Jains in Ardhamāgadhī at council of Vallabhi in the 5th Century A. D.

IV Dravidian Languages.

1 *Tamil* has a literature older than the oldest Tamil inscriptions which begin only from the 7th Century A. D. This literature is referred by some to the 3rd or 2nd Century A. D. Marked difference between the old and the modern Tamil.

2 *Malayalam.* Old inscriprions found in Malabar are wholly in Tamil. Inscriptions in Malayalam and Malayalam literature are quite recent.

3 *Kanarese* inscriptions begin in the 6th Century. The earliest literature extant cannot be referred to a period earlier than the 9th Century.

4 The earliest *Telugu* work extant is referred to the 11th century, but the inscriptions begin earlier, one of them being referred to the 7th or 8th century.

V Tense Suffixes in Dravidian.

A. Tamil.

1 Verbal bases. Definition of *u* bases.

2 Accent. Classification of verbs accented on the final vowel. Classification of other verbs.

3 Present tense suffixes *kiru* and *kinru*, corruptions in colloquial language and vulgar speech.

4 Past tense suffixes *t*, *d* and *n*.

5 Future tense suffixes *pp*, *v* and *b*.

6 Participles, the Infinitive and miscellaneous.

B. Old Tamil.

1 Tolkappiyam.

2 Past tense formed as in modern Tamil.

3 The K Aorist.

4 The T Aorist.

5 The P conjugation which furnishes the modern future tense.

6 The use of the 2nd person singular Imperative as the basis of new verbal formations.

7 The absence of *kiru* and the rare use of *kinru*.

8 Participles, the Infinitive and the Subjunctive.

C. Malayalam

1 The use of participles as finite verbs without personal endings.

2 The present tense suffix *kunnu*.

3 The past and the future formed as in Tamil.

D. Kanarese.

1 Extension of *u* bases in modern Kanarese.

2 The present tense suffixes *utā* and *uttā*. Criticism of Kittel's view that the final *e* of the present tense connotes emphasis.

3 The archaic present tense in *dap* or *tap*, and the change of meaning which it is supposed to have undergone in its present corrupted form without either of the consonants *d* or *p* of the suffix.

4 The past tense suffix *d* changed in some cases to *t*.

5 The future tense in *v*.

6 Old special formations in *kum* and *gum*.

7 The participles and the Infinitive.

E. Telugu.

1 Extension of *u* bases by the addition of the suffix *chu*, to all other bases *u*.

2 Two present tense suffixes. (1) *chun* or *tun* (2) *tā*.

3 Four past tense suffixes. 1 *yā*, 2 *ittu*, 3 *inā*, 4 *en* from *yān*, this last used only in the 3rd person singular and neuter plural without personal endings.

4 Two future suffixes *e* and *eda*, having alternative forms in the 3rd person singular and neuter plural.

5 One Aorist tense in *du* (old *tu*), the forms in the 3rd person being derived from the base without any tense suffix.

6 Participles, the Infinitive and miscellaneous.

F. General Remarks.

1 Great changes in the conjugation of verbs since the pro-Dravidian period.

2 Loss of the *K* aorist in Telugu and Kanarese leaving only a few verbal bases in *gu*.

3 Loss of the *t* aorist in all the languages except Telugu.

4 Loss of the *p* tense in Telugu, leaving only infinitives in *pan* and some active verbs ending in *pu*.

5 Loss of the *iya* past tense in Tamil.

6 Extension of Telugu verbal stems by the formative suffix *chu*, and Kanarese causal stems by *su*.

7 Formation of new present tenses with *kiru*, and *kiṇru* in Tamil, with *tā* and *tum* or *chun* in Telugu, and with *utā* or *uttā* in Kanarese.

8 Formation of new future tenses in Telugu with *e* and *eda*.

9 All the new forms enumerated above appear to be based on the model of grammatical forms in Prakrit and Sanskrit, and formed with materials taken from those languages. The same remark applies to some of the old forms in the pro-Dravidian stage.

VI. Derivation of the Dravidian suffixes.

A. Certain Miscellaneous Forms

1 Telugu *chu* and Kanarese *su*. Caldwell's identification of these formative suffixes with Tamil *kku* rejected as

being based on the equation of wrong elements. Suggested identification of these suffixes with the Atmanepada suffixes of the 2nd person singular imperative in Pali and Māhārāṣṭrī respectively, *viz. ssu* and *su*.

2 Suggested identification of the Dravidian causal suffixes *i, vi, pi* with the Indo-Iranian suffixes, *i, pi*. The view of Caldwell that the Dravidian causals may be derived from the Dravidian verbal nouns with the addition of the verb *i* "to give."

3 Identification of the Telugu benedictive suffix *tan* with *tam*, the suffix of the Atmanepada singular 2nd person imperative in Pali.

4 Identification of the Telugu benedictive suffix *eḍum* with the Tamil-Malayalam suffix in phrases like *avan vāḷaṇum* or *vāḷeṇum* which is taken to be a corruption of the anomalous *veṇḍum*, 'it is required' but appears to be derived really from the Vedic suffixes in the gerundives of the form *śuṣrūṣeṇyam*.

5 Identification of Tamil benedictive suffixes, *i, iya, iyar* with the forms which the Vedic suffix *īy* takes in the verbs *bhuñjīta, bhuñjīyātām, bhuñjīran*.

6 Identification of the Telugu future suffix *e* with the ending of the Parasmaipada Potentials in Prakrit which appear to have been of the same form *bhave* in all persons and numbers for which forms are available.

7 Suggested identification of the Telugu future suffix *eda* with the *ejja* and *ejjā* which are stated by Vararuci (vii 20, 34) to have been used as finals in the definite future; *ja*, being pronounced dentally in Telugu, may become *da*; instances of such change.

8 If these identifications are correct, the remarkable fact comes out that the immigrants from the north were in the habit of adding Aryan suffixes to Dravidian verbs

B. Past tense suffixes.

1 The suffixes *tva* and *ya* in classical Sanskrit. The forms *tvī, tvā, tvāya, tya, ya* in the Vedic dialects; and *thwa, twa, ta* and *ya* in the Avesta. The changed forms in Prakrit are:

(*a*) *dua* in Śaursēnī for two verbs *gam, kṛ*.

(*b*) *tūṇam* and *tūṇa* in the Pallava inscriptions.

(*c*) *ttu, ttā, ttum, ppi* in Arṣa Prakrit.

(*d*) *ya* appears with a long vowel in two-thirds of the number of forms in the Vedas. It becomes *ia* in Prakrit and *i* in the Apabhraṁśa.

2 The conjunctive participle of bases ending in *u* in all Dravidian languages are formed by suffixing *i* to the base which then loses the final *u*. This corresponds to the ending of conjunctive participles in Apabhraṁśa and most of the neo-Aryan vernaculars.

3 The form *koṭṭyā* in Telugu to which personal endings are affixed is on the same model as the majority of vedic forms in *yā*.

4 The old Tamil forms *iya* are bases on the Prakritic model in *ia*.

5 The Tamil-Telugu suffix *ina* corresponds to the Ardhamāgadhī suffix *yāṇam* which has become *ī-ne* in Gujarātī, and *ina*, *in* etc., in several Bhīlī and other dialects spoken in Gujarātī and the adjoining parts.

The view of Sir Herbert Risley who considers the *ne* of the Gujarātī suffix to be a remnant of *tane* and of L. P. Tessitori who considers it to be a corrupted remnant of *kaṇe* examined and rejected.

6 Telugu suffix *ittu* identified with the Ārṣa Prakrit suffix *ttu* which will become *ittu* after consonantal bases. Tamil suffixes *ttu* and *tu* also fall under this head.

7 Kanarese *du* and Tamil *ndu* which is perhaps merely *du* nasalised to preserve the medial pronunciation may be compared to Śaūrasēnī *dua* which like *ia* may drop the final *a* and become *du*.

C. Present tense suffixes.

1 Tamil *kiru* identified with the Sanskrit root kṛ "to do" which is used largely in the neo-Aryan vernaculars as an auxiliary verb to form conjunctive participles.

Caldwell's and Sten Konow's explanations of this suffix examined.

2 Tamil *kiṇru* and Malayalam *kunnu*. Identified w h Prakrit verb *kuṇa* arising from *kṛṇu*, the Sanskrit verb

kṛ with the conjugational suffix. Telugu pleonastic *konu* referred to the same origin.

Neo-Aryan analogies. Explanations of Hoernle and Tessitori.

3 Telugu *tā*. Probably *tam* the genitive plural termination of the present participle in Prakrit.

4 Telugu *chun, tun*. Usual explanation referring these to the Malayalam *kun* questioned.

5 Kanarese *utā, uttā*. Suggested identification with *huttam* and *hutto*, two of the forms of the present participle of *bhu* "to be" in the Māhārāṣṭrī Prakrit.

D. Future tense suffixes.

1 Dravidian *p, b, v* and its correspondence in meaning and in use with the neo-Aryan *b* derived from the gerundive suffix *tavya*. Suggested derivation of the Dravidian *p, b, v,* from the Vedic-Avestic gerundive suffix *tvā*. Possible affiliation of Kanarese *dap* with *tavya*.

2 Suggested derivation of the suffixes indicating quality or condition from the Sanskrit *tvam*.

E. Aorist suffixes.

1 Dravidiaṇ *ku*. Perhaps derived from the Sanskrit *kṛ* which assumes the form *ku* in colloquial Tamil in the verbs *irukku, kiḍakku*. Hindi analogies.

2 Dravidian *t*. Possible analogies in the Vedic and Avestic dialects.

Conclusion.

If the above identifications or even a portion of them be accepted, it necessarily follows that the so-called Dravidian languages have undergone vast structural changes since they came to be spoken by immigrants from the north. This paper refers only to tense-suffixes; but a consideration of the personal endings and of the vocabulary brings out the same tale.

Old Telugu Literature. *By* K. SITARAMAIYA.

The Andhras are an old race having references about them in many ancient works like the *Aitareya Brāhmaṇa*

and the *Mahābhārata.* They became powerful and reigned over vast territories. They can be traced back to 1000 B. C. The language of this race was originally a spoken dialect and the alphabet was invented later. From indications in some Sanskrit works, the Telugu script appears to be older than the Sanskrit one, though some authorities maintain that it was modelled after that of Sanskrit. Paiśācī, a vernacular Prakrit which is now extinct and which once possessed a glorious literature, is considered to be the mother of the Dravidian sisters. Telugu, though a Dravidian language, has so much transformed itself that almost all Telugu grammarians speak, of Sanskrit as its *prakṛti.* Telugu has three names in vogue-*viz.* Telugu, Tenugu and Āndhrabhāṣā. Paiśacī literature should have served as one of the sources of Telugu literature. But the influence of Sanskrit literature is paramount, and in the domain of prosody Kanarese influence may be identified. Religion, being the first inspiring topic of any poetry, should have been such even in Telugu literature, and almost the whole range of later Telugu literature has religion for its background. Though prose is of a later origin in any literature, oldest Telugu works are in mixed prose and poetry but this prose has all the qualities of poetry except rhyme. 1500 A. D. may be considered as the lower limit of old Telugu literature, and Nannayabhaṭṭu may be taken as the pivot, because he stands at the threshold of history. Nannayabhaṭṭu is praised as the traditional first Telugu poet, but there is ample evidence to prove the contrary. Some literature before him has been recently found out, which consists of an inscription ascribed to Yuddhamallu who lived in the ninth century A. D. and a metrical composition *Kumārasambhava* by Nannecoḍa, a Cālukya king who lived in the tenth century A. D. Both of them are full of linguistic data to prove their pre-existence. Their perusal at once proves to the reader, that they belong to a period when there was greater relationship between Telugu and its Dravidian sisters, than at present. Gradually Sanskrit iterature began to wield its influence. The whole period letween the earliest Telugu poetry to 1500 A. D. may be roughly called the age of translation. *Bhārata, Bhāgavata, Rāmāyaṇa* and many Sanskrit Purāṇas were translated.

Later, translation gave its place to adaptation, and Kāvyas took the place of Purāṇas. From a combination of the Puranic and Kāvya styles a fresh literary type called the "Prabandha" was evolved, and it was perfected by the beginning of the sixteenth century. This Prabandha style held the field nearly for three centuries till the end of the last century. The literature of these three centuries is purely imitative, and lacks in originality. A reaction has set in and poets have begun to take license, sometimes violating even the laws of metre. Drama, Novel, Essays, and almost all types of literary composition are being attempted with some degree of success, and the present is the period of renaissance to Telugu literature.

Telugu language and literature. *By* G. SOMANNA.

1 Extent of Telugu language: Area and population.

2 Antiquity of the Āndhra race: References in Aitareya Brāhamṇa, the Rāmāyaṇa and Mahābhārata and writings of Megasthenes.

3 Derivation of names Āndhra and Telugu.

4 Contribution by Āndhras to Sanskrit culture: Bhavabhūti, Mādhava, Vidyāraṇya, Jagannātha Paṇḍita, Vidyānātha, Mallināthasūri, Caitanya and Vallabhācārya.

5 Affinities of Telugu with other languages: Scythian, Dravidian, and Sanskritic.

6 Sanskritic element in Telugu: Substantives, Pronouns, Compounds, Verbs and Adverbs.

7 Classification of Telugu words: Tatsama, Tadbhava Deśya and Anyadeśya.

8 Earliest literature: First Telugu work and first Telugu grammar; the influence of these on subsequent literature.

9 Grammatical controversy: Classical Telugu and modern Telugu; relative merits and demerits.

10. Subsequent literature: Prabandha, Drama, Novel, Journal, and Periodical.

The Pronunciation of the hard *r* in Dravidian languages. *By* C. P. VENKATARAMA AIYAR.

The aim of this paper is to determine the exact place of articulation of the consonant known as the hard *r* in Dravidian languages, and ascertain also the manner in which it is articulated.

This has always been a moot point in Dravidian philology. Philologists hold conflicting views on this point. Some think that the hard *r* is only a rougher variety of the lingual r while others hold that it is a characteristic Dravidian consonant which is pronounced *tr*. Nor is the evidence furnished by grammars in the several Dravidian languages quite conclusive. The author of a grammar in Kanarese thinks that *r* and r have the same place of articulation. The author of a grammar in Malayalam classifies them under cerebral consonants. In Telugu the hard *r* still exists in many words of Dravidian stock, which are current even to this day in the same form and meaning in other Dravidian languages also.

The evidence from orthography is very interesting study, as it helps us to establish the fact that *r* and r are different. The hard *r* which occurs in Old Telugu and in Old Kanarese has been replaced in very many cases by the lingual r, though at one time the hard *r* did exist in these languages in old orthography, as well as in the pronunciation to a certain extent. But there is a tendency to ignore the hard *r* or often to confuse it with the lingual r due chiefly to a lack of proper appreciation of the sound values of these consonants. This perhaps accounts for the curious appellation by which some people would denote the hard *r*. They speak of it as the big r, as opposed to the lingual r which is named the little r. There is no point in such an unscientific nomenclature.

The hard *r* does not exist in Sanskrit. It exists only in the Dravidian languages and hence the investigation in respect of the pronunciation of this consonant is confined to the sifting of the available materials in the Dravidian languages bearing upon this point.

The materials that exist for this purpose are extensive enough and go back to very early times in the history of the Dravidian languages.

(1) There is first of all the testimony of ancient grammarians whose direct statements about the sounds in the language are valuable for the investigation in phonology. Especially, Tamil grammar, historically studied, throws considerable light upon the problem. The rules in the Tamil grammars, as well as the interpretation of such rules by different commentators, go to show that *r* is a peculiar Dravidian consonant which exists in the languages from very early times.

(2) The indirect evidence of spelling is also as reliable as the statement of phoneticians. Orthography brings out, especially in inscriptions, certain special phonetic features.

(3) An important criterion is metre. In the Dravidian languages, words containing hard *r* do not rhyme with words containing the lingual r. But in consonantal assonance the hard *r* generally rhymes with breathed stops.

(4) In common with the plosives, the hard *r* when doubled sounds as a breathed consonant. The real pronunciation of stop consonants is heard only in such words where they are doubled. When they occur medially and singly, they are spirants and partake of the nature of voiced consonants.

(5) The hard *r* is never used as an absolute final, whereas the lingual r is absolute final.

(6) In words where the hard *r* occurs as the final sound, an enunciatory vowel comes in as an offglide to silence. In this aspect the hard *r* behaves as a stop consonant.

(7) The stop consonants p, t, c, etc., shorten the vowel quantity of the final enunciatory vowels in dissyllablic words. In vowel sandhi this vowel,

which is not very audible, is elided. Such vowels are elided in sandhi when they occur after hard *r* as well. No such final enunciatory vowel is required to pronounce final lingual r.

(8) The place of articulation of the hard *r* is given in a separate rule of grammar, distinct from those in which the various other consonants are described. This would suggest that the hard *r* has a distinct and well-defined place of articulation.

(9) r being a rolled sound, a double r in words is impossible, whereas double *r* is very common.

(10) Both r and *r* are not absolute initials. This is the only point in which they apparently agree. Bat the celebral stop also is not absolute initial in Dravidian languages. Hence this proves nothing.

(11) The several pairs of words of one syllable having the same form apparently, but differing in meaning according as they contain the hard *r* or the lingual r, in the Dravidian languages, establish the distinction between them.

(12) In the combination of consonants, the hard *r* combines only with the guttural and labial stops, but not with the dental or the celebral stops probably because the place of articulation of the hard *r* is very near the area where these are produced.

(13) The hard *r* has a corresponding nasal *n* which is distinct from the dental nasal and functions characteristically as an absolute final.

(14) The past participle of monosyllable verbal themes ending in *r* is formed by reduplication of the *r* in all the Dravidian languages. In this matter *r* behaves as a stop.

(15) In Orthography in Tamil, when a word ending in lingual r comes in contact with a word beginning with a stop consonant like k, c, p, the stop sound is doubled, the incoming stop being in the

nature of an off-glide from one manner of activity to another. No such glide sound is audible when *r* is followed by k, c, or p.

(16) In borrowings from Sanskrit into Tamil, the dental mute before the other explosives in such words is replaced by the hard *r* in Tamil.

The cumulative effect of the foregoing investigation would lead to the irresistible conclusion that the hard *r* is an *alveolar plosive*; and that the hard *r* and its corresponding nasal with which the enumeration of the Tamil consonantal system ends, are characteristic Dravidian consonants, which are still preserved in Tamil.

VIII.—Philosophy.

Vaiṣṇavism in South India before Rāmānuja. *By* S. KRISHNASWAMI AIYANGAR.

The history of Vaiṣṇavism before Rāmānuja in the Tamil country reaches back to very early times. Sir R. G. Bhandarkar, in his book on *Vaiṣṇavism Śaivism* etc., contributed to the Encyclopædia of Indo-Aryan Research, has taken the following positions in respect of this history. The Vaiṣṇava religion was propagated by a series of teachers, the earlier among whom are generally known as saints (Āḷvārs), and the later of them teachers (Ācāryas). The latter class goes back five generations from Rāmānuja for its beginning, and the former class begins before that time and counts 12 names among them. In regard to these latter, Sir Ramkrishna takes up the following positions :—

1 That Āḷvār Kulaśekhara must have lived some time about the middle of the 12th century;

2 That, in consequence, the order in which these are usually named is unreliable; and

3 That the earliest of these Āḷvārs must have flourished about the time of the revival of Brahmanism and Hinduism in the north, and therefore about the 5th or 6th century A. D., admitting the possibility, however, that Vaiṣṇavism might have penetrated to the south as early as the first century A. D.

An examination in some detail of these positions separately goes to prove that Āḷvār Kulaśēkhara must have lived long anterior to the 12th century A. D. There is an inscription of A. D. 1088 making provision for the recital of one of his works. The commendatory verse to his work Perumāḷ Tiromoḷi is made by Maṇakkāl Nambi four generations before Rāmānuja. On other general historical grounds Kulaśekhara may have to be ascribed to the 6th or 7th century A. D.

In regard to the second of his positions, there has been a traditional order recognised from the days of Rāmānuja. The

order seems to have been regularised and put into its present form by Vedānta Deśika in his work Prabandhasāram, which seems to have been adopted by the greater hagiologists who were followers of Deśika. But the question has really to be settled not on the details of history preserved by the hagiologists, but by a study of their own works, which in many cases, provide internal evidence for ascribing them to particular periods. Examining these carefully, we can ascribe, for very good reasons, the last of the traditional Tirumangai Āḷvār to somewhere about the middle of the 8th century, Periyāḷvār to the beginning of the 7th century and the early Āḷvārs, Poygai Āḷvār and his two companions, to the age of the Śangam in the early centuries of the Christian era. Neglecting the two Āḷvārs whose works form a comparatively negligible portion of the Prabandham, the others lend themselves to this classification which goes a long way in supporting the order, such as is recognised by the Vaiṣṇavas, whatever errors of detail may be discovered in the accounts preserved by the hagiologists. In regard to Nammāḷvār a careful examination of all the evidence adduced goes to prove that he must be given a place immediately after the first Āḷvārs, a position ascribed to him in the traditional order.

Apart from the history of these Āḷvārs merely, there are numbers of references in secular literature to Vaiṣṇavism, specially in the work of the Śangam collection called *Paripāḍal*. There is a clear evidence in this of a knowledge of the Purāṇas etc., and of the Pāñcarātra Āgama; there is even direct reference to the Śaiva Āgamas. On a broad review of the information that is available in early Tamil literature, it comes out that Vaiṣṇavism in the Tamil country certainly goes back to the commencement of the Christian era as Sir Ramkrishna surmised; and the form in which that Vaiṣṇavism comes to our notice in this early literature would presume an anterior history for this Vaiṣṇavism, which might take us back to the beginnings of its history much anterior to the commencement of the Christian era. This investigation raises various other issues such as the date of the *Rāmāyaṇa*, the date of the *Mahābhārata*,

the age of Manu, each one of which will have to be investigated separately. These investigations might lead to considerable revision of the views at present holding the field on many of these particular questions.

Fallacies in Indian Logic. *By* G. C. BHATE.

1 The definition and classification of fallacies from the logical and psychological point of view.

2 The object of the paper is to bring out the true nature of fallacies of Indian logic and show the falsity of the view which compares them with the formal fallacies of Aristotelian logic.

3 The similarity and peculiarity of Indian analysis of reasoning. Its admission of a *single* type of Barbara, hence no moods and figures.

4 Contrast between the Aristotelian and Indian presentation of the probative force of an argument; the Aristotelian was mathematical, while the Indian was discursive and dialectical. Hence the importance of distribution of terms in Aristotelian syllogism and its absence in Indian syllogism.

5 Meaning and significance of technical terms in Indian conception of reasoning. The force of the argument depends upon the right or wrong reason.

6 The theory of fallacy based on this conception.

7 Description and exemplification of the five fundamental fallacies of Indian logic.

8 Their similarities and dissimilarities.

9 The correct conception of the error in argument from the modern point of view.

10 All the Indian fallacies turn out to be cases of material fallacy, where either the major or the minor premiss is wrong.

11 Hence the simplicity of detection of fallacies in Indian Logic.

12 Recognition of formal fallacies under different names.

13 Description of Chala, Jāti and Nigraha.

14 Stern ambiguity of language found in Chala.

15 Petitio principii found in Annyonyāśraya, in Prakaraṇasama and in one sense of Asādhāraṇa.

16 Irrelevancy found in some of the Nigrahasthānas.

17 Conclusion.

A Note on Śiva and Phallic worship. *By* G. K. CHANDORKAR.

Argument:—In naming certain aboriginal people, the *Ṛgveda* has mentioned only the totems which they had; Such as Aja, Bheda, Sṛga, Pārāvata, and others.

Śivāḥ, Bhalānas, Pakthus have also been mentioned in the same.

'Śiva' in Sanskrit means 'Śisna'-phallus. Hence Śivāḥ were the people who had phallus as their totem:

We have in two places 'Śiśnadevāḥ' mentioned in the Ṛgveda, as the enemies of the Aryas. 'Śivāḥ' and Śiśnadevāḥ, therefore must be the same—meaning people with a totem of phallus.

Hence we have conclusive evidence to prove the coexistence of phallic-worship among the aboriginal tribes with the Vedic Ṛṣis—a conclusion not countenanced by Dr. Muir.

'Trividham Anumānam' or A Study in Nyāya Sūtra I. i. 5. *By* A. B. DHRUVA.

1 Nyāya-Sūtra I, i, 5 as interpreted in:—

(1) Vātsyāyana's *Nyāyabhāṣya*
(2) Uddyotakara's *Nyāyavārtika*
(3) Vācaspatimiśra's *Nyāyatātparyaṭīkā*
(4) Īśvarakṛṣṇa's *Sāṇkhyakārikā*
(5) Gauḍapāda's S. K. Bhāṣya
(6) *Māṭhara-Vṛtti*
(7) *Pūrvamīmāṁsābhāṣya* of Śabarasvāmin
(8) *Anuyogadvāra*.

2 *General uncertainty* among commentators:—

While there is practically complete unanimity as regards the names of the three types of Anumāna, there are serious differences in respect of what the names are intended to convey. Thus :—

(1) पूर्ववत् may mean inference from a cause, or simply inference from former experience, or even recognition from a formerly observed mark;

(2) शेषवत् may mean an inference from effect or inference from a part, or inference of one member of a pair of correlates from the other, or a totally different type of inference, *viz.* inference by exclusion;

(3) सामान्यतोदृष्ट may mean inference based on mere likeness or uniformity of experience, without causation at its back, or it may mean inference of supersensible truths through abstract generalities.

Gotama himself has borrowed the terminology of the Sūtra (1, i, 5) from "Naiyāyikas" who were the ancient Mīmāṁsakas. Proof of this, and of the antiquity of Indian Logic generally. Importance of the Jain tradition about the composition of the Āgamas, and its bearing upon the question at issue. Results summarized:

(1) The first glimmer of the light of Indian Logic belongs to the Pre-Buddhistic age of the 'Parṣads'

(2) The early beginnings of a systematic art of Logic belongs to the latter part of the same age.

(3) The art tends to become a science in the period of early Buddhism and its contemporary Brahmanism.

(4) It has established itself as a science before 300 B. C.

(5) The results of Brahmanical thought in this department, as linked with Theism and Realism, get summed up in the Nyāya Sūtras of Gotama, as similar work of Jain and Buddhist logicians carried on in harmony with their own religious and philosophical dogmas is represented in the corresponding fragments of the Jain and Buddistic literatures.

(6) Gotama's Sūtras—not necessarily all their contents, some of which are earlier—belong to the latter half of the Pre-Christian Sūtra period. The work may be dated somewhere about 200 B. C., in the age of the Āhnikas or Daily Lessons, like the Navāhnikas of Patanjali's *Vyākaraṇa Mahābhāṣya.*

3. Comparison of the commentaries *inter se.* The light it throws upon the chronological relations of (1) Vātsyāyana (2) Māṭhara and (3) *Anuyoga.* A passage of *Anuyoga.* Priority of Māṭhara to *Anuyoga.* The dates of *Ṣaṣṭitantra,* the *Sāṅkhyakārikā,* the *Māṭharavṛtti* (all the three referred to in *Anuyoga.*) Takakusu—Belvalkar—Keith controversy. Their view discussed. Vātsyāyana earlier than Māṭhara ; *Māṭharavṛtti* may with a great deal of probability be referred to the first century A. D., Vātsyāyana a century or two earlier. This will account for the vast development of the Science of Logic which took place in the interval between Vātsyāyana and Māṭhara. The date of Vātsyāyana not a settled fact. Mādhyamika Philosophy before Nāgārjuna and *Laṅkāvatāra Sūtra.*

व्याकरणे वेदान्ते च ग्रन्थकाराणामनवधानानवधानाभासाः तत्प्रसक्तं चान्यत् ।

गजेन्द्रगडकरोपाह्वबाळाचार्याणाम् ।

१ अथोपोद्घातः । (अ) व्याकरणशास्त्रे विद्यमानाः ग्रन्थकाराः प्राचीनाः (आ) कोयं वृत्तिकारः

अथानवधानानि ।

१ व्याकरणशास्त्रेः—१ भगवतः पाणिनेः १ वा क्यष इति सूत्रे । २ भगवतः पन्तजलेः १ आम इति सूत्रे, २ प्रपितामहचरणानां विषमीग्रन्थे च । ३ जयादित्यवामनयोः १ कुम्भारशीर्षयोरिति सूत्रे, २ काशिकाकर्तारौ कौ, ३ तन्निवासदेशः कः । ४ भट्टोजीदीक्षितानाम् १ लघावन्त इति फिट्सूत्रे, २ लुभो विमोहन इति सूत्रे च ।

तेषामनवधानाभासाः ।

१ प्रादूहोढो इति वार्तिके, २ हन्तेरत्पूर्वस्येति सूत्रे च । ५ शेखरकृतां नागेशभट्टानाम् १ इकःकाश इति सूत्रे ।

२ वेदान्तशास्त्रेः—१ भगवतां शंकराचार्याणाम् १ उभयथा च दोषादिति सूत्रे, २ छान्दोग्योपनिषद्भाष्ये, ३ सनत्सुजातपर्वभाष्यमाद्यशंकराचार्यकृतं नेति विचारः । २ आनन्द

ज्ञानगोविन्दानन्द (रत्नप्रभाकार) योः १ तदुपर्यपि बादरायण इति सूत्रे, २ छान्दोग्यभाष्यटीकायामानन्दज्ञानस्य, ३ ऐतरेयोपनिषद्भाष्यप्रश्नोपानिषद्भाष्यटीके आनन्दज्ञानकृते न। ३ श्रीमदानन्दतीर्थभगवत्पादाचार्यटीकाचार्ययोरनवधानाभासौ, १ ईक्षतेर्नाशब्दमित्यत्र, २ पूर्वविकल्पः प्रकरणात् ।

The Yogīśvara Yājnavalkya, his Life and Philosophy, Chronology and Contemporaries. *By* P. B. Joshi.

It is generally believed that Śankarācārya was the founder of the School of Vedanta Philosophy. This is true to some extent, but it is not literally true and in my opinion Yājnavalkya was, if not the chief, at least one of the original founders of the School of Brahma-vidyā. And the great Ācārya has at the beginning of his commentary on Bṛhadāraṇyakopaniṣad indirectly admitted this fact.

Yājnavalkya was a scholar of marvellous genius and high attainments and as a matter of fact he was acknowledged to be the greatest original thinker and philosopher of his time ; and that is the reason why in the Upaniṣads, in the Purāṇas and in the Smṛtis, by sages like Parāśara and others, he was styled Yogīśvara or the Lord of Philosophers. It is therefore sad to find that the life and writings of this sage of gigantic intellect should not have received a wider publicity than they have received at the present moment. As the information about Yājnavalkya lies scattered in various Sanskrit works such as the *Mahābhārata*, *Upaniṣads*, *Śatapatha Brāhmaṇa*, *Bhāgavata*, *Viṣṇu*, *Āditya*, *Skanda* and other Purāṇas and Smṛtis, an attempt has been made in this paper, on the authority of these sources, to give a connected narrative of the life and writings of this great philosopher and law-giver of India.

In the city of Mithilā, there lived a pious Brahmin named Devarāta who was, owing to his generosity, nicknamed Vāja Seni or food-giver. As he had no son, he performed many sacrifices and as the result of his piety, he was blessed with a son whom he named Yājnavalkya. After being invested with the sacred thread, Yājnavalkya studied the *Ṛgveda* under Bāṣkala, the *Sāma* and *Atharva*

Vedas under Jaimini and Āruṇi (Uddālaka) and the *Yajur-Veda* under his uncle Vaiśampāyana.

While he was studying under Vaiśampāyana, some disagreement occurred between Yājnavalkya and his uncle and as the result of this dispute, he left his uncle and went to the Himalayas where he practised penance. And as the result of his penance and special prayers, the God of Light was pleased with him and he became inspired. And by the favour of the God of Light Yājnavalkya was able to compose the white *Yajur-Veda*, *Śatapatha Brāhmaṇa* and other works on Hindu law and philosophy. All the mantras in the *Yajur-Veda* of Yājnavalkya are most systematically arranged and they are not mixed here and there with the Brāhmaṇas as is the case with the old *Yajur-Veda*. And for this reason as well as for the superiority of its philosophy, the *Yajur-Veda* of Yājnavalkya came to be styled as Śukla or bright, as the Taittirīyas were called Kṛṣṇa or black. Yājnavalkya divided the white *Yajur-Veda* into fifteen branches such as Kāṇva, Mādhyandina, Jābāla, etc., and all of these came to be called Vājasaneyins.

Yājnavalkya had two wives named Maitreyī and Kātyāyanī and the latter bore him three sons, named Candrakānta, Mahāmegha and Vijaya. Maitreyī was highly educated and before his departure to forest, at her special request, Yājnavalkya expounded to her the doctrine of Brahma-vidyā ; and his philosophy is seen at its best in his dialogues with Maitreyī and Gārgī and also with Janaka and Śākalya.

King Janaka had organised a sacrifice to which learned Brahmins were invited and he had offered a gift of a thousand cows to anyone who was the most expert in the knowledge of Brahma-vidyā. As no one accepted the challenge Yājnavalkya got up and asked his pupils to take away the cows. His claim to be the Brāhmaṇa (expert in the knowledge of Brahma) was disputed by the other sages unless and until he gave satisfactory replies to their queries. And Yājnavalkya was able to accomplish this. In reply to Gārgī's question about *cidākāśa* and its abode, Yājnavalkya answered "Cidākāśa pervades above and below this Universe. It is

imperishable. It is neither large nor small, neither long nor short. It is different from the organs and living creatures. It does not affect and is not affected. It is self-refulgent and free from darkness. It is omnipresent, free from all desires. It is knowledge incarnate—it is *Para-Brahman.* By its will the Sun and the Moon shine in the sky, and the rivers flow. Those who do not know this Brahman and perform sacrifices and other rituals, perform them invain ; because without the knowledge of this Brahman all these become perishable. And after death these persons are born and reborn. But, those who know that Brahman and identify themselves with it, get everlasting salvation."

Yājnavalkya firmly believed in the existence of one Supreme God whom he called Brahman or Para-Brahman, and his explanation given to Śākalya, as to how the one Supreme God was turned or symbolized into three and the three into thirty three deities and the thirty three into thirty three crores, is highly interesting. He was the greatest social and religious reformer of his time. He believed in the immortality of the soul and taught that mental adoration was the best form of worship and, that the worship of idols was meant for persons of inferior intellect (मनोमया वरा पूजाः प्रतिमा चाल्पबुद्धिनाम्).

Chronology and Contemporaries.

It is now generally admitted by scholars that Patañjali who wrote the *Mahābhāṣya* on Pāṇini's grammar, lived in the second century B. C., and it is therefore believed that the date of Pāṇini cannot be later than 400–300 B. C. On Śākaṭāyana's and Yāska's theory of the verbal origin of nouns, the whole system of Pāṇini is founded and we find in Yāska's work that he refers to twenty predecessors among whom Śākaṭāyana and Śākalya are the most important. And we have already shown that Śākalya was a contemporary of Yājnavalkya. In his Sūtras Pāṇini also refers to Pāraskara in the following words, " *Pāraskaraprabhṛtīni ca Saṁjnāyām*'' and we find that Yāska respectfully refers to Pāraskara at the end of his *Nirukta.* From the above it is clear that Pāraskara lived long before Pāṇini and Yāska. From a careful study of the *Śrautā Sūtras* of Kātyāyana and the *Gṛhya Sūtras* of Pāraskara, we come to the conclusion

that both were friends and contemporaries. There is a tradition current among the orthodox Brahmins that the Gṛhya Sūtras and the Śrauta Sūtras were prepared by Pāraskara under the guidance of Kātyāyana. The commentator on the *Prātiśākhya* of the white *Yajur-Veda*, at the beginning of his work pays respectful compliments to Kātyāyana and describes him as the most distinguished disciple of Yājnavalkya. This clearly shows that Kātyāyana was a disciple of Yājnavalkya and therefore the period of the latter must have been earlier than that of the former. This Kātyāyana who was the author of the *Śrauta Sūtras*, should not be confounded with the later Kātyāyana who wrote the *Vārtikas* on Pāṇini's Sūtras.

In the *Mahābhārata* Sabhāparvan, Chap. 33, there is an account of the Rājasūya sacrifice performed by king Yudhiṣṭhira. From that account we find that at this sacrifice, the sage Vyāsa acted as *Brahmā*, Susama held the office of *Udgātā*, Paila was appointed as *Hotā* and to Yājnavalkya was assigned the important duty of *Adhvaryu*. We therefore find from the above account, that Yājnavalkya was a contemporary of Vyāsa, Yudhiṣṭhira and Paila.

Again, from *Harivaṁśa*, Chap. 142, we find that Brahmadatta, a disciple of Yājnavalkya, was the family priest, friend and fellow-student of Vasudeva, the father of Śrī Kṛṣṇa, and at the Aśvamedha sacrifice, performed by Vāsudeva, there were present, Vyāsa, Vaiśampāyana, Yājnavalkya, Sumantu, Jaimini, Brahmadatta, Jābāla and Devala. Thus we come to the conclusion that the period of Yājnavalkya was earlier than that of the *Mahābhārata*.

Among the fifteen chief disciples of Yājnavalkya, after whom the fifteen recensions of the white Yajur-Veda were called, was one named Kaṇva. Whether this Kaṇva was identical with the sage Kaṇva of Kālidāsa's *Śakuntalā* or not, cannot be definitely ascertained. But it is worthy of note that in the *Śatapatha Brāhmaṇa* of Yājnavalkya, we find the first allusion to Duṣyanta, Bharata and Śakuntalā the heroes and heroine of Kālidāsa's *Śakuntalā*; and there is not the least doubt that the plot of Kālidāsa's drama, *Vikramorvaśīya*, was written on the basis of the story of

Urvasī and Purūravas, first narrated at full length in the *Śatapatha Brāhmaṇa* of Yājnavalkya—a work which, as Prof. Macdoneli rightly observes, is next to the *Rgveda*, the most important production in the whole range of Vedic Literature.

The relation of the *Bhagavadgītā* and the *Bādarāyaṇa-sūtras*. *By* R. D. KARMARKAR

The essay is mainly concerned with a criticism of the verse ऋषिभिर्बहुधा गीतं... (Bhag. XIII. 4). It is shown that the expression Brahmasūtra in the verse cannot be taken to mean loose passages from the Upaniṣads or a prose treatise like the sutta of the Bauddhas but must mean a work in the Sūtra style. It further controverts Mr Tilak's view that Brahmasūtra means *Bādarāyaṇasūtras* and that one and the same author was responsible for both the *Gītā* and the *Bādarāyaṇasūtras*. Mr. Tilak's view is refuted on the following grounds :—(1) The *Gītā* based upon the Sāṅkhya and the Yoga philosophy, while the *Bādarāyaṇasūtras* try to refute them. (2) The *Gītā* makes no clear allusion to Buddhism, while the *Bādarāyaṇasūtras* take great pains to refute the Buddhistic doctrine in detail. (3) The *Gītā* introduces a new terminology Kṣetra and Kṣetrajnain the thirteenth chapter only, where a reference to the Brahmasūtras is made, but the *Bādarāyaṇasūtras* do not contain the words Kṣetra and Kṣetrajna at all. The expression Brahmasūtra cannot thus possibly refer to the *Bādarāyaṇasūtras*. It probably has reference to earlier the Vedānta Sūtras composed by ancient sages like Bādari, Audulomi mentioned in the *Bādarāyaṇasūtras*.

The Springs of Action in Hindu Ethics. *By* SUSIL KUMAR MAITRA.

Hindu Ethics is social ethics and psychological ethics and culminates in the Philosophy of the Absolute as the highest stage of the spirit.

The Social Ethics of the Hindus is embodied in a scheme of Varṇāśramadharmas or duties of station in life, while their Psychological Ethics includes a comprehensive

analysis of volition and of the springs of action as well as practical schemes of Cittaśuddhi or subjective purification based thereon. Lastly, their Philosophy of the Absolute is expounded in the various schemes of Mokṣa or Trascendental Freedom whether regarded as a state of self-autonomy, or as of extinction of self-hood in the Absolute, or as of devotion, worship and love.

The subject of the present paper "The Springs of Action in Hindu Ethics" is part of the psychological ethics of the Hindus and is treated in Vaiśeṣika, Nyāya, Sāṅkhya and Vedānta systems.

The Vaiśeṣikas trace will to two sources or roots namely Desire (Icchā), and Aversion (Dveṣa). Desire is classified into egoistic and altruistic. The springs which are compounds of desire are :—Sexual Craving, Appetite for food and drink, Passion, Resolve, Dispassion, Compassion, &c. Similarly the various forms of aversion are :—Anger, Revengefulness, &c.

The Naiyāyikas go further and derive even desire and aversion from something more ultimate viz. :—Error. In consonance with this intellectualism, Jayanta distinguishes two forms of the springs of action, (1) those that are of an intellectual nature and are therefore forms of Error or Moha-such as perplexity, vanity, inadvertance &c., and (2) those that are forms of attraction and aversion and are therefore mediately connected with Moha through attraction and aversion.

The Sāṅkhya view is expounded in the system of Patañjali which derives the impulses from three roots namely :—(1) Error, Moha (2) Greed, Lobha and (3) Anger, Krodha. The passions namely cruelty, mendacity, etc. may each arise from anyone of these three sources. They may also determine the subject in various ways, in some cases leading to indulgence through overt acts, in some to acts of persuasion or use of force on others, in some again to mere subjective approval when such acts are perpetrated by others. They are again of various degrees of intensity ranging from the violent and impetuous down to the mild and the feeble. Some passions again are to be uprooted altogether and in all

conditions of the spirit, while others may be permitted under special conditions and circumstances.

Hence the characteristics of Hindu Psychological Ethics are :—(1) The doctrine of psychological composition in regard to emotions and passions ; (2) the recognition of the spontaneous, the unreflective and the instinctive in the account of the impulses and passions as having ethical significance ; (3) the intellectualistic and the transcendental stand-point in the ethical valuation of the springs of action ; (4) the attempt to bridge the gulf between the transcendental and the phenomenal by the recognition of Sāttvika impulses, auspicious tendencies and dispositions ; (5) the doctrine of self-autonomy and absolute freedom as the ideal of the transcendental life, the ultimate end or goal in the ethical ordering of the impulses as distinguished from the doctrine of freedom-in-cooperation which is the highest ideal according to Christians and Buddhists.

In the Vedanta view, the springs are classified into auspicious and inauspicious dispositions and tendencies of the mind as determined by habitual past indulgence. The baser tendencies are unreflective and spontaneous, while the purer impulses imply knowledge of the truth. It is pointed out that these desires and longings may exist either in the form of appropriated impulses implying subjective choice or again as passing wishes and mere fancies without any conscious preference above the threshold. The latter, however, indicate a deeper subliminal personality and therefore must not be ignored by the moral philosopher.

Śaṅkara on Buddha. *By* PANDURANGA SHARMA.

Śaṅkara rejected the Buddha teachings on four grounds. His usual way of accepting the truth is based on three principles. Buddha's not accepting the Vedas as an authority is shown and refuted by Kumārila. It is rejected by all authorities taking their stand on scriptures. The test of reasoning is applied in his scholium. Buddha laid his main stress on ethical matters. Śaṅkara remained silent on this point. Ethical views not inconsistent with his authority

need not be criticised. Buddha was not conversant with the true spirit of deep Brahmanical learning and hence Buddha's hatred towards the vedic religion. Its causes. He was a man of pessimistic views. He only thought over the way to come out of the pain and this was the moral side of Buddhism. Metaphysics was developed afterwards by his disciples. Sūtras of Vyāsa on Buddha in *Bramha-sūtra* are inserted later on. This portion of *Bramha-sūtra* is the fruit of Vyāsa's afterthought and was embodied in the body of the work in its revised edition. At the time of Jaimini Buddhists were non-entities. Explanation of the two interpretations of the two Sūtras of Jaimini prove this clearly. Gautama thought it necessary to record the views of Buddha in his system. At the time of Vyāsa necessity was felt to consider Buddhism at one place in all its sides. Revolutionary change in the literature on this subject. There is a great necessity of considering Buddhism and the social condition of the Bauddhas for the right grasp of Śaṅkara. Śaṅkara adopted the material already assimilated by Gautama, Vātsyāyana, Kumārila etc. Effects of his predecessors on Śaṅkara. Vātsyāyana's objections on Buddhism with their answers are literally adopted by Śaṅkara in *Śārīra.* The work of Nyāya school on the subject is very useful. Kumārila was the best judge. It is evident from many grounds that Śaṅkara had grasped the true spirit of Buddhism and represented it faithfully in his work. He was proficient in the original Pali works on Buddhism side by side with the Sanskrit works on it. Reason for the absence of metaphysical discussions in the Tripiṭakas is popular Buddhism. The terms used by Śaṅkara in connection with the Bauddhas in his scholium are simply expressive of the bare facts only. Bauddha's Avidyā is altogether different from Māyā of Śaṅkara.

The Pada and Vākya Bhāṣyas of *Kenopaniṣad.* *By* SHRIDHARSHASTRI PATHAK.

केनोपनिषादि ये भाष्ये शाङ्करत्वेनोपलभ्येते तयोः पदवाक्यभाष्ये इति प्रथितिः । तयोभाष्ययोर्भिन्नकर्तृकत्वमेककर्तृकत्वं वेत्यनेन निबन्धेन विमृश्यते ।

श्रीमद्भिराद्यैः शङ्कराचार्यैः प्रस्थानत्रयं भाष्येण सनाथीकृतम् । तत्रेतरासु चोपनिषत्सु तथा भगवद्गीतासु तथा ब्रह्मसूत्रेष्वाचार्याणामेकमेव भाष्यमत्रैव केनोपनिषदि तद्द्वयं कुतः । अपि वा तैरेव द्विवारं व्याख्यायीयमुपनिषत् । अथवान्यतरद्भाष्यमन्यस्य तत्पीठारूढस्य केवलं नामसादृश्यात्तन्नाम्ना व्यवह्रियते । ततो विभेदज्ञापनार्थं पदभाष्यं वाक्यभाष्यमिति नाम्ना प्रथिते ते इति । एवं विषये समुत्पद्यमाने भिन्नकर्तृके ते इति सिद्धान्तः समभवत् तत्र च निदानं बहिरन्तर्वर्तिकारणकलापः । सोऽत्र निबन्धे प्रदर्शितः । अन्तर्वर्तिकारणेषु व्याख्यानशैल्यवतरितवाक्योद्धटपूर्वोत्तरपक्षशास्त्रीयोपोद्बलकानि मुख्यतया प्रदर्शितानि । बहिःकारणेषु अन्यतरभाष्यस्यान्यतरस्मिन्ननिर्देशः स्वयं पदभाष्यवाक्यभाष्येतिपदानुल्लेख इत्यादि मुख्यतया प्रदर्शितम् । एवं भिन्नकर्तृकत्वसिद्धौ तत्पौर्वापर्यनिर्धारणद्वारा पदभाष्यमेवाद्याचार्यकृतम् वाक्यभाष्यं त्वन्यस्य कस्याचिदिति साधितम् । एवं वाक्यभाष्यस्य पश्चात्तनत्वे सिद्धे कियतः कालादनन्तरमयं वाक्यभाष्यकृत्प्रादुर्बभूवेति शंकरानन्दादिनिर्देशेन साधितम् । अस्मिन्विचारे भाष्यटीकाकृत आनन्दज्ञानस्यान्येषां सांप्रदायिकपण्डितानां च मतानि निर्दिश्य परीक्षितानि । एवं चात्रैतेंऽशाः साधिताः—पदभाष्यमेवाद्याचार्याणां शङ्करभगवत्पूज्यपादानाम् । वाक्यभाष्यं तदनन्तरजं तदनुयायिनाम् । प्रायो वाक्यभाष्यस्य संपादकास्तत्पीठस्था एव स्युः शङ्करेति नाम्ना भ्रमजन्यतायाः सुलभत्वात् । आचार्यपीठमधिरूढानां विद्याशंकरेति विद्यानृसिंहेति द्वे एव नामनी यथाक्रमं वर्तेते तेन पश्चात्तनैः कैश्चिद्विद्याशङ्करेति नामवद्भिरेवेदं भाष्यमकारि । ततो भेदज्ञानार्थं वाक्यभाष्येति या पश्चात्तनभाष्यस्य संज्ञा तामनुरुध्य पदभाष्यमिति पूर्वस्य संज्ञा बभूवेति सुश्लिष्टतरम् । तत उभयोर्भाष्ययोरेककर्तृकत्वमेवेति प्रतिपादयितॄणां मतानि निर्दिश्य परीक्षितानि ।

पूर्वमीमांसायाः सूत्रविशेषस्य विवरणे विप्रतिपत्तिः ।

By G. V. PHADKE.

समासेन प्रवक्ष्यामि यदुक्तं व्यासतोऽग्रतः ।
नाध्येतव्याः स्त्रिया वेदा इति रूढिर्दृढा जने ॥ १ ॥
तन्मूलान्वेषणे यत्नो बहुकालं कृतो मया ।
प्रतिषेधश्रुतिस्तत्र प्रत्यक्षा नोपलभ्यते ॥ २ ॥
स्मृतयो बहवो लभ्या अधिकारनिषेधिकाः ।
तद्बलादनुमीयन्ते परैर्वेदास्तदर्थकाः ॥ ३ ॥
मन्त्रा वेदेषु दृश्यन्ते स्त्रीभिः पाठ्याः परःशताः ।
श्रुतिस्तल्लिङ्गकल्प्या तदनुमानं प्रबाधते ॥ ४ ॥
परानुमानतः प्राप्तां लिङ्गक्लृप्ता श्रुतिः स्वयम् ।
विरुद्धां बाधते लिङ्गं प्रमाणं बलवत्तरम् ॥ ५ ॥

मुनित्रयं पाणिनीयं स्त्र्यधिकारानुवादकम् ।
प्रथिता ब्रह्मवादिन्यो गार्ग्याद्या लोकवेदयोः ॥ ६ ॥
श्रौतेषु कर्मसु स्त्रीभिराशीर्मन्त्राः पुनः स्वयम् ।
पठ्यन्ते तत्र मूलं तु ' यावद्वचन ' मीर्यते ॥ ७ ॥
तदाधारो जैमिनीयं ' तस्या यावद् ' [जै. ६-१-२४] निगद्यते
सूत्रं तदर्थविवृतौ द्वैधमत्र प्रदर्श्यते ॥ ८ ॥
' यावत् ' पदं सूत्रगतं भ्रमोत्पादि न संशयः ।
परिमाणं तु तस्यार्थः पूर्वैर्विवरणे कृतः ॥ ९ ॥
आशीर्मन्त्रा एव पाठ्याः स्त्रीणां नैव ततोऽधिकाः ।
नियमश्चैवं वेदपाठः स्त्रीणां पूर्वैर्निषिध्यते ॥ १० ॥
मया स गृह्यते ' यावत् ' समस्तोऽर्थेऽवधारणे ।
अधिकारद्वयं पूर्वं विमृश्य हि विवेकतः ॥ ११ ॥
स्त्रियैव पाठ्यास्ते मन्त्रा न पुंसेत्यवधार्यते ।
नायं निषेधो नारीणां वेदपाठस्य मे मते ॥ १२ ॥

The Antiquity of the *Bhagavadgītā*. *By* S. V. VENKATESHWAR.

A review of the date of the *Gītā* as compared with the *Kauṭiliya* and the Buddhist and Jain texts, and as classified into Political, Sociological, Cosmological, Philosophical, Religious and Literary, assigning the *Gītā* to the pre-Mauryan period.

Logic of Śaṅkarācārya and Aristotle. *By* R. ZIMMERMANN.

1 Definition of Logic with both philosophers, Aristotle and Śaṅkarācārya. Logic is the science of correct thinking. It is a distinct discipline of philosophy in Aristotle, in Śaṅkarācārya Logic is embodied and supposed in the whole system. The reason for the difference lies in the different lines along which philosophical development went in ancient India and Greece. In Aristotle, Logic has universal, in Śaṅkara limited force.

2 The system of Logic in the two philosophies. Aristotle's logical writings, his division of Beings, the relation

between body and mind, the sources of concept and thought are described. In Aristotle Logic is formal Logic, epistemology, methodology; in Śaṅkara it is mainly epistemology and methodology. The views on knowledge and its sources are with Śaṅkara and Aristotle the same only to a certain extent. The main difference lies in the universality of the principle of contradiction in Aristotle which isnot without exception in Śaṅkarācārya.

3 The relation of Logic to other philosophical doctrines. Aristotle's system is essentially Realism; hence Logic, though only a propædeutic discipline, is scientific and governing all the other philosophical doctrines. The Śaṅkaramata is substantially a teaching of Mokṣa. This Mokṣa is brought about by knowledge, a logical principle; but where knowledge and Logic in the ordinary sense clash with his own final doctrines, Śaṅkarācārya discards the "lower" by an appeal to the "higher" knowledge.

IX.—Archaeology.

Ancient Indian Architecture. *By* M.A. ANANTHALWAR.

1 The ancient Science of Architecture.

2 The 'Śāstras' and 'Kalās' of India.

3 The Sanskrit Works on Architecture.

4 The great antiquity of the Śilpa Śāstras.

5 Need for a critical study of the Śāstras.

6 Difficulties of the task.

7 Th artisan classes.

8 The danger of a superficial study of the Śāstras.

9 Vastness of the subject.

10 General purpose of the discourse.

11 Testimony of eminent Western scholars on the greatness of India and of her Architecture.

(a) Professor Carpenter (b) Max Müller (c) Toda (d) Banister Fletcher (e) Fergusson (f) Harrington.

12 Service of eminent Indian scholars in the direction of Positive Sciences.

13 Lack of knowledge of and sympathetic insight into the Indian ideals in the Western authors, their wrong and misleading starting points, their consequent misinterpretation of her Architecture.

14 Discussion of the question of the 'descending bathos' in the design of Hindu temples, wrongly condemned by some Western writers.

15 Architecture expressive of national life and character.

16 Ancient cult and religion of the country and the history of its evolution from the genesis to be studied for a proper appreciation of her Architecture.

17 Natural conditions of the country shape the artistic impulse

18 Need for tracing the evolution of Indian Architecture from its earliest origins and stages.

19 Modern researches, revealing to us the great antiquity of the ancient civilizations.

20 The region of 'Jambu-dwīpa' and 'Bharata-khaṇḍa'.

21 The trans-Indian origin of the Aryan race.

22 The Sumerians, the earliest ancestors of the Aryan race.

23 Their divergence into two cults, the 'Classic' or the 'Sumeru' and the 'Reformed' or the 'Semitic'. The countries of the two cults.

24 Similarity of cult obtaining in Babylonia, Persia and India.

25 The immigration of the Aryans into South-India—the Dravido-Aryans—their classic cult and Architecture.

26 The Aryan immigration into North India, the Semitic influence, the later Buddhistic cult and Architecture.

27 Architecture, the outward index of the cult of the land. India's architectural glory, the several styles obtaining in India.

28 The features of the Buddhist style, th early Christian and the later Gothic styles.

29 Plea for the revivification of ancient Indian sciences and for the uplift of national ideals.

Sanskrit MSS., their Search and Preservation. *By* ANANTHA KRISHNA SHASTRI.

Gives a short summary of the history of MSS.

Strongly recommends collection of MSS. at a Central place.

Degeneration of the objects of life from intellectual to material gain resulting in carelessness about MSS. preservation and the consequent loss.

Regeneration by creating an interest in MSS. collection by having a general MSS. survey of the whole of India.

Preparation of cumulative lists of MSS. from time to time necessary.

Suggests steps for the preservation of MSS. with the custodians themselves.

Strongly recommends formation of "The All-India Association for the Search of old MSS." with branches throughout India.

Mentions differences of scripts in the north and the south, also similar differences in the subjects treated.

Advocates editing and printing MSS. under the supervision of recognised scholars.

Advocates even Government intervention for preservation of MSS. on the ground of their being more or less national property rather than individual one.

Mentions the qualifications necessary for the worker in the cause of MSS. search.

The Rock-cut Temples in Southern India. *By* J. DUBREUIL.

In this paper it is pointed out that cave-temples, are numerous in the Tamil country being found in 64 villages.

The rock-cut temples constitute an isolated group well characterised by their sculptures and inscriptions.

Many of them are found in the Pāṇḍya country (Madura, Ramnad and Tinnevelly districts); but the mode of cutting the rocks has been introduced in the Tamil land by a King of the Pallava dynasty named Mahendravarman I.

The early Kalacūris and the Alphabet of their Copper-plate grants. *By* Y. R. GUPTE.

The names Kalacūri, Kalaccūri, Kalatsūri, Kaṭaccūri and Kaḷacūri are identical. Dr. Fleet's remark that Buddharāja, son of Śaṅkaragaṇa was probably an early king of the Kalacūri dynasty. Sāṅkheḍa grant of Śântilla. What it proves. Abhōṇa grant of Śankaragaṇa edited by Prof. K. B. Pathak. Its date. Places mentioned in it. The Aihoḷe inscription. What it indicates. The Nerur grant of Maṅgaleśa. It implies that Buddharāja was strong in

cavalry and had considerable troops of elephants. The Vadner grant of Buddharāja discovered by the author and edited by him. Places mentioned in it. The date of the record. The Sarasvaṇi grant edited by Dr. Kielhorn. Its date and places noted in it. The dominions ruled over by the early Kalacūris. Their capital. Clue as to where they reigned. Kṛṣṇarāja, the first known member of the dynasty. Śaṅkaragaṇa's power. The extent of his territory. His feudatory. Buddharāja was an emperor. His addresses, his commands to all kings and tributary princes. Maṅgaleśa did not crush his power. The fabric of the copperplates of the early Kalacūris. Their era. It was employed by other kings viz., Traikūṭakas and Ucchakalpas. The coinage of the early Kalacūris. Devalāna coins. Their attribution by Drs. Bhau Daji and Fleet. Prof. Rapson's views. Author's reasoning and views. What Rai Bahadur V. Venkayya, late Government Epigraphist for India thought of the author's assignment. Was the coinage stopped by Śaṅkaragaṇa and Buddharāja? The early Kalacūris borrowed Gupta epithets. It is not improbable that before attaining sovereignty they were subordinate to the Guptas. The Kalacūri alphabet also has the Gupta characteristics. Form of their copperplates. Their alphabet is of the western variety of the southern one. The most important southern characteristics. The accompanying plate of the alphabets has been prepared by using the cuttings from the plates that appeared in the Epigraphia Indica with the permission of the Director General of Archæology in India and the Government Epigraphist for India. Peculiarities of single letters in the grants. Slight differences observable in the alphabet of the three grants, one of Śaṅkaragaṇa and two of Buddharāja. Buddharāja's records have more of the southern characteristics than that of Śaṅkaragaṇa's. Local element. If we want a term for the sake of convenience, we may call the alphabet dealt with as the Kalacūri alphabet.

The Cave and Brāhmi Inscriptions of Southern India.

By H. KRISHNASHASTRI.

1 The paper attempts to bring to the notice of scholars

the earliest writings found so far in the caverns of the Madura and Tinnevelly districts of the Madras Presidency. They are about twenty in number and are engraved in Brāhmi characters of the early Aśokan type. Orthographical affinities appear to connect them with Ceylon cave characters and the Bhattiprolu (Guntur District) casket script

2 These epigraphical monuments of a pre-Christian era have not been interpreted. Their language is such as to suggest a mixture of Prakrit and Dravidian elements. The renderings are purely tentative and suggetions made may not command final acceptance from scholars. The modest attempt of this paper is only the initial step in the long and interesting course of profitable research that these ancient records are bound to evoke in the world of scholars.

The Jain Manuscript Bhandars at Patan—A final Word on their Search. *By* J. S. KUDALKAR.

Anhilwada Patan, ever since its foundation in A. D. 745-46, has been the true centre of Jainism in Gujarat and under royal patronage, the Jain preceptors went on writing Jain literature till the 16th century. All this literary treasure miraculously escaped destruction at the hands of the Mahomedan conquerors of Gujarat and has come down to us as "a great store of documents of venerable antiquity" of which any European University Library could be proud Besides the three superficial inspections made of these MSS. Bhandars by the Bombay Government, H. H. the Maharaja Gaekwad, in whose territories these Manuscript libraries are located, had these libraries thoroughly inspected on two occasions. This paper is an account of these searches of inspection.

It is said that King Kumārapāla had established twenty-one large Bhandars of Manuscripts, and Vastupāla, minister of King Vīradhavala, established three more large Bhandars at great costs. But unfortunately none of these is in existence to-day, having been probably scattered through religious persecutions.

Col. Tod, of *Rajasthan* fame, was the first to bring to notice the great manuscript-collection at Patan in 1832, when there existed 40 boxes and a catalogue. In about 1850 A. K. Forbes, the author of the *Rasamala*, got from this collection, which then numbered about 500 works, a copy of Hemācārya's *Dvyāśraya*. In 1873 and 1875 Dr. Bühler, sent by the Bombay Government, attempted to see the Patan Bhandars and got partial access to five collections, which in all contained about 3000 manuscripts. Encouraged by Dr. Bühler's report, the Bombay Government sent in 1883 Dr. (now Sir) R. G. Bhandarkar. The latter, during a week's stay, saw 4 out of 11 Bhandars cursorily, compared their lists with their contents and inspected carefully only a few. These searches induced the Baroda Gevernment to send in 1892 Mr. M. N. Dwivedi to make a detailed search with the double object of preparing a cotalogue of the important MSS. and of publishing translations into vernaculars of a few most important among them. Mr. Dwivedi examined about ten thousand MSS; prepared a list of 2619 important ones and recommended 374 for translation. Mr. Dwivedi was followed in 1893 by Dr. Peterson, with the main object of seeing the famous Hemācārya's Bhandar, but, like his predecessors, he too failed. He, however, discovered new boxes containing many MSS. not seen by Dr. Bhandarkar and got extracts made of about 200.

The Jain community by this time realised the importance of these searches and prepared a list of all important Jain Bhandars in India, including those at Patan, and a Jain millionaire promised to give a building of Rs. 41,000 for keeping the Patan Bhandars together.

After the Sanskrit Branch of the Baroda Central Library was organised in 1912, a search of important MSS. all over India was undertaken by the Library and this led the Baroda Government to institute a second and a final detailed search of the Patan MSS. collections. The late Mr. C. D. Dalal M. A., the then Sanskrit Librarian, who was a Jain by birth and a Jain scholar, was deputed for this work. Mr. Dalal stayed in Patan for 3 months, worked 14 hours a day and examined carefully all the 13 Bhandars, which exist there at

present and which contain more than 12,000 paper MSS. and 658 palm-leaf manuscripts. Mr. Dalal prepared a detailed *catalogue raisonné* of all the 658 palm-leaf MSS. and of an equal number of very important paper MSS. These will be published in the "Gaekwad's Oriental Series" started by the Baroda Central Library in 1916.

This final search has brought to light some new rare works, of which no other copies exist elsewhere, or which were known to exist upto now only through their Chinese or Tibetan translations, and has also revealed a rich literature in Prakrit, Apabhraṁśa, and Gujarātī languages, which would throw a new light on the philology and history of these languages. There are at least more than 300 manuscripts in these collections, which, by their importance and antiquity, would be the object of jealousy among scholars of high repute either for possessing or editing the same.

Note on some Valabhī Coins. *By* G. P. TAYLOR.

The coin-legend, supplied to scholars during the sessions, to be printed later (has now for the first time been deciphered on some Valabhī copper) coins, that were struck probably in the 8th century of the Christian era. The inscription is written in Brāhmī characters, but of a debased type. Can any member of the Oriental Conference read it, or shed any light upon it?

X.—Ancient History.

The basic Blunder in the Reconstruction of Indian Chronology by Orientalists : or The Greek Synchronisms revised. *By* M. K. ACHARYA.

1 *Introductory:*—The great and good work done by western orientalists and their Indian followers since the time of Sir William Jones—the difficulties of earlier orientalists. European public opinion against assigning any great antiquity to India beyond that of Greece. Hopeless exaggeration, to the European mind, of Indian traditions. The Purāṇas thus totally ignored by earlier orientalists. Lack of indigenous historic materials assumed by them and explained away by reference to the supposed philosophic indifference of the Hindus to mundane affairs. The attempts made "to reduce to proper limits" the Puranic accounts. The work however marred by serious limitations of the investigators, by complexity of subject matter, and by defective methods of investigation arising from racial prejudices and prepossessions, superficial knowledge, undue disregard of tradition recorded in "native literature," reckless distortion of original texts, and overweaning selfconfidence. The most typical instance furnished by the false synchronism of Alexander the Great and Candragupta Maurya which has been called the "Sheet Anchor of Indian Chronology."

2 *Origin and application of the hypothesis:*—Sir William Jones vaguely started the theory in 1793. Colonel Wilford and Prof. Lassen put it on firmer basis. Prof. Max Müller's staunch support, plausibility of the theory. The familiarity of the Europeans with Greek and Roman accounts of India. Sandrocottos of the Greeks undeniably contemporaneous with Alexander the Great and Seleukos Nikator. Identification of Sandrocottos with Candragupta. Candragupta assumed to be the Maurya, who was the only Candragrupta known to the earlier orientalists. The theory welcomed as furnishing one certain starting point in investigating a huge field of uncertainties. The hypothesis by sheer repeti-

tion now passed off as a proved fact"no longer open to doubt". Reconstruction of Indian chronology by counting backwards and forwards and by applying averages and approximations, all starting from the " fixed point " of 322 B. C., to, e. g. the Śaiśunāga and Nanda pre-Mauryan dynasties, and the Śuṅga, Kaṇva, Āndhra and Gupta post-Mauryan dynasties.

3 *Point in favour of the hypothesis* :—Sandrocottos undeniably contemporaneous with Alexander and Seleukos Nikator, as Megasthenes was the latter's ambassador at the court of Sandrocottos described as ruler of the Prasii or kingdom east of the Indus, with capital at Palibothra identical with Pāṭaliputra. His predecessor he overthrew was Xandramus or Andramus or Aggraman, reported to be of low origin and unpopular with his people. These details would apply to Candragupta Maurya who overthrew the Nandas, the first of whom Mahāpadma Nanda was of low origin, being the son of a Śūdra woman. This first or major Greek synchronism supported by the second or minor Greek synchronism, afterwards discovered, of Aśoka, grandson of Candragupta Maurya and Antiochus Teos, grandson of Seleukos Nikator as recorded in the edicts of king Priyadarśin, who in Buddhist record is identical with Aśoka Maurya. The theory as assumed by Vincent Smith gives the most satisfactory basis for fixing the date of Buddha also (as lying between 570 and 480 B. C.).

4 *Arguments against the hypothesis* :—Reexamination of the details supplied by the Greeks. Xandramus or Andramus cannot be identical with Nanda, if Nanda were the reigning king of the Prasii at the time of Alexander's invasion. Xandramus only a Greek corruption of Candramus or King Candra. Sandrocottos or Sandrocyptus who visited Alexander during the reign of Xandramus and who later overthrew Xandramus must be some one other than Candra or Candragupta. The impossibility of making all the details given of Xandramus and Sandrocottos refer to one and the same person. The Greek Sandrocottos a great emperor who owed his elevation entirely to his own prodigious powers. The Candragupta Maurya both of the Hindus and the Buddhists a mere puppet in the hands of the wily Cāṇakya, who elevated Candragupta to the throne solely

to revenge himself on the Nandas. The concensus of authority of the Purāṇas, of *Kathāsaritsāgara* and *Mudrārākṣasa*, and of the *Dīpavaṁsa* and *Mahāvaṁsa* on the point. The dates assigned to Buddha by orientalists quite conventional. The comparatively meagre value of the second Greek synchronism, as grandsons of two contemporaries must necessarily be contemporaries also. The assumption involved that Priyadarśin of the Edicts is identical with Aśokavardhana. This identification entirely based on Buddhist records, which however are rejected by all later orientalists as being historically untrustworthy.

4 *The new or suggested hypothesis :* The contemporary references of the Greeks would fit in more aptly if applied to Candragupta and Samudragupta of the early Gupta dynasty. Candragupta and his father Ghaṭotkaca both Āndhrabhṛtyas, being only officers in the army of the Āndhra kings. Unpopularity of Candragupta who overthrew the Āndhras. His prodigious powers. The dates of the reigns of Candragupta and Samudragupta according to the Purāṇas, *untampered*, are B. C. 328 to 321 and 321 to 270—Alexander's invasion 324-Megasthenes ambassador 302. Samudragupta a great conqueror, called by Vincent Smith "the Indian Napoleon," bore also the title of Aśokāditya or Mahāśoka. His conquests recorded by Harisena and inscribed on Priyadarśin's pillar at Allahabad. Who was Priyadarśin the great Buddhist Emperor? Three kings called Aśoka :—Dharmāśoka of Kashmir, Aśokavardhana Maurya and Aśokāditya Gupta—all three in all probability Buddhists. Samudragupta Aśokāditya's relations with the kings of Ceylon and Assyria. Vasubandhu the Great Buddhist teacher and writer patronised by Candragupta and Samudragupta. Internal evidence from the Purāṇas most of which make the scantiest references to the Gupta emperors but put the Āndhrabhṛtyas, Ābhiras and Hūṇas all together. The absence of any reference to the edicts of Aśoka Maurya by Chinese pilgrims esp. Hiuen Tsang. The confusion in the Ceylonese Buddhist records between the three Aśokas and the transference of the deeds of all three to one, Aśoka Maurya; Candragupta and Samudragupta however not known to earlier orientalists.

5 *Comparative merits of the two hypotheses:* The earlier theory placing Candragupta Maurya in 320 B. C. originated by orientalists whose knowledge was very imperfect and superficial, and maintained by later orientalists only by pulling down and upsetting all Hindu and Buddhist records and traditions. The earlier orientalists lived in times when European conception of the ancient history of no nation other than the Jews extended beyond B. C. 500 or 600, Since then the discovery of the ancient histories of Egypt. Babylon, Persia, and China have carried the world's ascertainable history far back of B. C. 2000 to 3000. The overwhelming evidence in favour of holding India to be no less older than Egypt and China. Indian chronology as reconstructed by Western orientalists on the basis of the synchronism of Alexander the Great and Candragupta Maurya entirely conventional and opposed to all Hindu and Buddhist records. The interpretation of archeological remains adduced in support, is no less conventional, and is vitiated by a very imperfect understanding of Indian Eras used in inscriptions, whether monumental or numismatic. The subject dealt with in great detail by the late T. B. Narayana Sastri B. A., LL. B., of Madras in his "Mistaken Greek Synchronism" originally issued as an appendix to his "Age of Śaṅkara". The suggested hypothesis of synchronising Alexander with Candra, the Gupta, would furnish a far more satisfactory basis for calculation. The dates of Buddha, of Mahāvīra, of the Mahābhārata War etc., on the new hypothesis, will be in consonance both with old Hindu and Buddhist records and with later researches correctly interpreted.

6 *Conclusion:*—Reconstruction of our past history on the new hypothesis will of course create big gaps especially after the Gupta period which cannot be filled up without colossal labour. Our archaeological records will have to be revised and reinterpreted. The difficulties of the task before the Indian orientalists. The opposition likely to come from the "prestige" of Western orientalists. The need to overcome these difficulties in the interests of Truth. Correct principles of investigation and criticism. The office of the Historian.

A Peep into Mediaeval Dekkan. *By* A. V. VENKATARAMAYYAR.

Administrative, economic, religious, architectural and social Picture of the later Cālukyas in the eleventh and twelfth centuries of the Chrisstian era.

The chief sources of information

(A) *Administrative*

The Mahārāja. The Mahāpradhānas. The Yuvarāja. Military administration. The standing army and feudal levy. Official divisions of the army. Weapons of war: martial law. High chivalry of the times. Lofty standard of international morality. The civil administration. Territorial divisional officials etc. The central Government, chief departments. Sources of revenue, land, customs etc. Customs and revenue officials. Surplus budget. Local administration. The village, twelve village land. Village pañcāyat, stability of the self-governing village constitution.

(B) *Economic*

Soil, climate, products, imports, exports etc. Sea-borne trade. Intervention of money as a medium of exchange. Coins, weights and measures. Household furniture. Mechanical and technical knowledge. Merchant and craft guilds. Town corporations. Relations between the guilds and corporations. Opulence of the trading class. Rate of interest and its significance

(C) *Religious*

Worship of the Puranic Gods. Śiva but not Viṣṇu the Kuladevatā of the Cālukyas. The hold of Jainism and Buddhism. Local deities. Combined religious worship. Perfect religious toleration. Preponderant religious worship. Formularies of religion. Religious grants and endowments.

(D) *Architectural*

Cālukya architecture. Carving sculpture. Range of style.

(E) *Social*

General character of the people. Women, their ornaments, dress etc. Sports and amusements of kings, queens. Upper class women. Tenderness to animals. Belief in astrology. Dolotsavam and hook. Swinging festivals. Educational advance.

The Karnatak and its Place in Indian History. *By* V. B. ALUR.

1 *Introduction.*—A student of Indian History will be struck with wonder to see that so few pages are allotted to the history of Southern India and especially that of Karnatak in the recognised histories of India. I want to show that the history of Karnatak also is important; and so deserves more space.

2 *Definition of the word "The Karnatak History."*—The history of the strip of land that is peopled by Kanarese people is not called "Karnatak history" as it ought to be; the word used in the histories is "Mahārāṣṭra." But it is not right to use that word; for the dynasties of Cālukyas, Rāṣṭrakūṭas etc., who ruled over Kanarese country should be properly called Karnatak kings; because their capitals are in Kanarese country, their inscriptions are in the Kanarese country etc. Dr. Bhandarkar, when he wrote the history of the Deccan, was perhaps misled by the word Mahārāṣṭra in the Aihole inscription. It is time we should correct it.

3 Mr. Vincent Smith says in his history that the materials for this history are few, and that the dynasties of this country are mainly of local interest. I want to show that these statements are not accurate.

4 But before proceeding further I must give a very brief sketch of the history of the dynasties who ruled in the Karnatak. Leaving Kadambas, and Gaṅgas who ruled about the beginning of the Christian era, we come to Cālukyas. They ruled in Badami for about 250 years and their kingdom extended almost over the whole of the Southern Peninsula. The Raṣṭrakūṭas ruled in Malkhed for about 250 years. Then again Cālukyas succeeded and ruled vigorously for about 200 years. Then after a short interval the whole country was split up into two. The northern portion was ruled by Yādavas of Devagiri and the southern by Yādavas of Halebidu. Then came Vijayanagar kings who fell in 1565. These are the important periods of Karnatak history.

5 The objection as to want of material is not true. For, though the traditions and accounts of foreign travellers

are not many, the materials are not wholly wanting. But as to the evidence of archaeology, monumental, epigraphic and numismatic, there is copious material already discovered. But there is a vast store yet undiscovered. Moreover, not only is this material vast but also varied. We have beautiful temples of all sorts worth studying, and other monuments which throw light on mythology, architecture, religion, history and iconography. In no part of the world are the inscriptions so very numerous; and coins also are frequently found. The exploration of certain villages will reward the enterprise of an explorer. As to evidence of contemporary literature, Karnatak is very rich. There are many Sanskrit works and the whole of Kanarese literature will yield history if properly studied.

6 The objection as to its importance also is not true. The dynasties that ruled over the Karnatak ruled over vast territories and were very advanced. Moreover, in Karnatak we find all the peculiar traits of Hindu civilisation such as caste system, village community etc., in their extreme form, and so one can study them there more systematically. Karnatak in ancient days produced great religious preachers, statesmen, scholars, etc., who occupy a very prominent position in Hindu civilisation. The names of Śaṅkara, Rāmānuja, Madhva, Vidyāraṇya, Bhāskarācārya, etc., and the names of Kanarese authors such as Ādi-Pampa, Ponna, Ranna, etc , will do honour to any country. All these persons belong to Karnatak. Kings like Pulakeśin, Nṛpatuṅga and Vikramāditya, are such as any nation may be proud of. The history of such a land deserves a prominent place in the history of India.

7 *Conclusion*:—Hence the warning, given by Mr. Vincent Smith, that the attention of historians should now be turned to the South, should be attended to.

India as known to the Ancient World. *By* GAURANGANATH BANERJI.

The original habitat of the human race was in the East. Arts and sciences were cultivated here from very ancient

times Intercourse between different countries was carried on by means of caravans, particularly by the inhabitants of the coasts of the Arabian Sea. But the land route was beset with many difficulties. So sea-borne trade gradually sprang up. Navigation however made its first efforts in the Mediterranean Sea and Persian Gulf as these Seas lay open the continents of Asia, Europe and Africa. But gradually the Arabian Sea was included in the sphere of Commerce, and subsequently communication by sea with India was established. The question of navigation on the Persian Gulf however is still entirely shrouded in mist. The most ancient inscriptions do not mention anything of such matters. Incidentally we may gather however that the great prosperity of Elam was due to the wealth acquired by trade relations with countries on her eastern frontier. Elam was really the connecting link between the civilized countries of Nearer aud Eastern Asia.

Now the principal sources of our knowledge regarding the early Indian trade are derived from the Indian Scriptures on the one hand and from contemporary foreign literature on the other. In the Vedic times, navigation was diligently pursued, though trade only existed in barter. The first trade between India and the West was that carried on the Erythrean sea,—the Aruṇodadhi of the Pauranic lore. From the history of the Chinese coinage, it is quite certain that an active sea-borne commerce between China and Western Asia sprang about 700 B.C. There is ample evidence that there existed maritime intercourse between India and Babylon in the 7th century B. C. e. g the Bāveru Jātaka. But the trade was chiefly in the hands of the Dravidians, although the Aryans also had a share in it. The secret of the greatness of Babylon lay in her monopoly of the treasures of the East.

The trade of the ancient Egyptians on the contrary consists in buying goods from their nearest neighbours on one side and selling them to those on the other side of them, and though trading wealth of Egypt had mainly arisen from carrying the merchandise of India and Arabia, the Egyptians seem to have gained no knowledge of the countries from

which these goods come. India only seems to have been known to the early Greeks as a country that by sea was to be reached by way of the Euphrates and the Persian Gulf. It was in the reign of Energetes 200 B.C. that an Indian toiled straight from India to Egypt and following his example, Endoxus of Cyzicus made a voyage of discovery to India. But the art of navigation was so far unknown that but little use was made of this voyage and the trade with India under the Ptolemies was still carried on camels' backs. It was only through the Romans that Egypt obtained the great maritime traffic to the East. Alexandria under the Romans became the great entrepôt of the tradingworld—it was a spot where Europe met Asia and each wondered at the strangeness of the other. It is in the time of Claudius (A. D. 41) that the route through Egypt to India became really known to the Europeans. The historian Pliny (79 A.D.) has left us a contemporary account in his "Natural History". There is also the "*Periplus of the Erythrean Sea,*" giving us a valuable geographical knowledge of the several sea-passes and towns near the coast etc. But that the Romans did not go to India, is a fact of vast historical importance. The Western World was cut off from all contact for 1000 years with the world of the East.

The Date of Cakradhara the Mānabhāva. *By* G. K. CHANDORKAR.

Argument:—The time of Cakradhara the Mānbhāva is proposed to be ascertained from the Life of Cakradhara himself in two parts, *Līlā Saṁvāda* and *Līlā Caritra* a work written by a Mānabhāva in symbols and from *Phaltan Māhātmya* also another work of a Mānabhāva.

1 The story of Cakradhara's (alias Cāṅgadeva's) birth as set forth in the *Phaltan Māhātmya*, states that the father of Cakradhara had made a vow to the Samādhi of Cāṅgadeva 'near the Purandhar hill'. This Samādhi 'near the Purandhar hill' is the Samādhi of Cāṅgā Vaṭeśwara the famous disciple of Śṛi Dnyāṇeśwara.

Chāṅgā Vaṭeśwara went into Samādhi in the Śaka year 1219.

2 Muktābāi the only sister of Śrī Dnyaneśwara has been thrice mentioned in the Caritra as a person of the past.

Muktābāi went into Samādhi in the Śaka year 1220 as accepted by Marāṭhī Scholars.

3 The same *Caritra* mentions Namdev the favourite of Śri Viṭṭhala.

Namdev is described by Cakradhara himself as a highwayman given to cattle-stealing along with Viṭṭhala a Brahman. Both were once pursued and killed. Viṭṭhala became a God, or was rather turned into God by his sons composing Abhaṅgas on him, wherein he and his wife Rakhumāi were mentioned by the sons.

Namdev went into Samādhi nearly 50 years after Śri Dnyāneśwara, that is in Śaka year 1268.

4 Marāṭhī scholars are aware that some Abhaṅgas of Śrī Dnyāneśwara appear under an assumed name of 'Bāpa Rakhumā Dēvī Varu Viṭṭhalu'. These are the Abhaṅgas referred to above.

Hence Cakradhara Mānabhāva must have lived long after Śaka 1248.

Since the earliest reference to Mānabhāvas is to be met with in the works of Śrī Eknath (1521 Śaka). Chakradhar must have lived between 1268 and 1521. I allot him to the latter half of the 15th century.

Date of the Coronation of Mahāpadma. *By* HARIT KRISHNA DEB.

The *Matsya Vāyu* and *Brahmāṇḍa* Purāṇas, towards the close of their dynastic account of the Kali Age, assert that the account has been carried down to the 836th year 'after Mahāpadma'. As the preceding verse counts back from the coronation of Mahāpadma, the expression 'after

Mahāpadma' should be understood to mean 'after Mahāpadma's coronation' which is obviously taken here as the pivot of reckoning.

To determine a precise date for this event is the object of this paper. The approximate date has long been known. It must fall about the 4th or 5th century B. C., since the Greek notices conclusively prove that the Maurya dynasty, which supplanted Mahāpadma's dynasty after the latter had ruled for 40 or 100 years, had already been established before 300 B. C., and Aśoka Maurya speaks, in an inscription, of Magas who ruled in Cyrene c. 300 B. C.—c. 250 B. C. The 836th year after Mahāpadma, the last definite date given in the Purāṇas, thus falls about the 5th century A. D.

It is not likely that Indian historians of such a late period failed to recognise the necessity for the use of an era in order to make their dynastic account chronologically intelligible. Several eras were in existence at that period, but most of them were regnal reckonings of particular monarchs, and the adoption of any one of these reckonings may have been thought to betray a political bias not worthy of an impartial historian. But there was one era not open to this objection, namely the Laukika or Saptarṣi era. This era has been used by Kalhaṇa in his *Rājataraṅgiṇī* in preference to the Śaka era in recording the dates of Kashmir kings. It would appear that this custom was already quite archaic in Kalhaṇa's time, and may well have existed at the time the earliest Purāṇas received their present form. The Laukika era was eminently suitable for employment in Puranic chronology; for it is 'laukika,' *i.e.* 'popular,' and the Purāṇas are popular histories. Another name for this era is 'Śāstra saṁvat'; and what Śāstras, if not the Purāṇas, could imperatively require the use of an era? The Puranic account actually gives an exposition of the Saptarṣi reckoning just after mentioning the period between Mahāpadma's coronation and the last definite date to which the dynastic account has been brought down It is difficult to avoid concluding that the Saptarṣi or Laukika reckoning has been availed of here; in other words, the 836th year after Mahāpadma's

coronation is nothing but the last year of a Saptarṣi century.

This century must correspond to the years 324–424 A. D.; for no other century preserves the Graeco—Indian synchronisms alluded to above. Mahāpadma's coronation thus falls about the year 413 B. C. (413 B. C.-424 A. D.=836 years).

The same conclusion follows from other and independent considerations. The dynastic account is claimed to have confined itself to the enumeration of kings of the Kali Age. The 836th year after Mahāpadma must, therefore, have been considered to mark the end of the Kali Age.

Now, the Purāṇas also assert that the beginning of the Tretā Age is to be identified with the starting-point of history. True, they assume several manvantaras, each manvantara consisting of several caturyugas, and each caturyuga consisting of four yugas calculated according to the *divya* reckoning which conceives of a single year as containing 360 human or ordinary years. But the manvantaras before the Vaivasvata period have no relation to history proper, as proved by the occurrence, in *Matsya*, of the word *bhuvi* in connexion only with the sons of Vaivasvata Manu, as also by the explicit statement in *Vāyu* that corn-cultivation, preservation of cattle etc., first became possible in the Vaivasvata period. Further, the *divya* mode of reckoning is conventional, as attested by the use of such expressions as *Sañjnita*, *āhurmanīṣiṇah,* and by the existence of an account of the yuga periods without reference to the *divya* reckoning in ch. 32 of *Vāyu*. The first 27 caturyugas of the Vaivasvata period are likewise conventional, since the Purāṇas ascribe a cyclic character to the historical events they enumerate. The Tretāyuga, therefore, which is taken in the Purāṇas to mark the beginning of orthodox history, is the Tretāyuga of the 28th caturyuga of the Vaivasvata manvantara; and the *divya* calculation need not be considered in judging the historical period. The period between the starting-point of history and the end of the Kali Age is thus one of (3600 + 2400 + 1200 or) 7200 years.

In the days of Megasthenes, the Hindus reckoned the starting-point of their history to have been 6451 years and three months before Alexander, that is, about 6777 B. C. As this reckoning was based upon the reign-periods of kings, and was associated with legends concerning Spatembas (Svāyambhuva) and Boudyas (Buddha), the standpoint must have been that of the Purāṇas. The date 6777 B. C. should consequently be identified with the beginning of the Tretā-yuga of the Purāṇas, with the result that the end of the Kaliyuga falls in 424 A. D. (6777 B. C.-424 A. D. 7200 years), and the coronation of Mahāpadma is assigned to 413 B. C., being 836 years prior to the end of Kali.

According to this view of the chronology, the yuga-periods are:—

Tretā—6777 B. C.-3177B. C.
Dvāpara—3177 B. C.-777 B. C.
Kali—777 B. C.-424 A. D.

We can put this chronology to some rough tests.

The Purāṇas say that the Vedas were divided into four parts in the Dvāparayuga, *i. e.* between 3177 B.C. and 777 B.C. This result is in sufficient agreement with the considered views of Western scholars on the age of the Vedas. Again, the Purāṇas ascribe to the Dvāparayuga the division of Puranic literature into 18 parts. This view tallies with the inference, based upon the Puranic use of the present tense in connexion with three contemporary kings, who were removed from Yudhiṣṭhira by about four generations, that the age of compilation of the original Purāṇas lies in the 13th or 14th century B. C. But it seems to conflict with the view, also noted in the Purāṇas, that the Kali Age began with the death of Kṛṣṇa. The fact is that both views are combined in the Purāṇas as at present constituted; for while proposing to give a dynastic account of the Kaliyuga only, which consists of no more than 1200 years, the Purāṇas actually treat of a period extending over more than 18 centuries. This composite standpoint, resulting in an overlapping of about 700 years as between the Dvāpara and Kali periods, is admitted in so many words:—*yugapat samavetau dvau dvidhā vaktum na śakyate.*

Mahāpadma's coronation-date, as determined here, brings him into chronological connexion with Darius II of Persia (424 B. C.-404 B. C.) who was, like Mahāpadma, an illegitimate scion of the older ruling house, and had usurped the throne by killing the legitimate heir. Mahāpadma may have been encouraged by the Persian example to seize the throne not lawfully belonging to him. The conquests of Darius I had brought the Achaemenian Empire into close contact with India proper, and may have necessitated the formation of a unified Middle Indian Empire under Udayana,—the Empire which Mahāpadma was later to constitute into a kingdom under his sole sway by uprooting the subordinate kings. He was the first Śūdra monarch after the Bhārata War, and his coronation-date is a very important land-mark in the political history of India.

Identification of the Kings of Āryāvarta defeated by Samudragupta. *By* K. N. DIKSHIT.

Important points treated in the paper :—

1 Balavarman, the last of the nine princes of Āryāvarta defeated by Samudragupta (vide his Allahabad Pillar Inscription) is most probably identical with Balavarman, the ancestor of Bhāskaravarman of Assam.

2 Rudradeva the first of the 9 kings mentioned in the same inscription is probably to be identified with Rudrasena I of the Vakaṭaka dynasty, who was a contemporary of Samudragupta.

3 These identifications point to an order in which the names of the nine kings were mentioned, beginning from the South, then to the West, then to the North and finally to the Eastern frontier of the original Gupta kingdom. The kings mentioned may thus be tentatively localized in particular regions.

The Date of Haribhadrasūri. *By* MUNI JINAVIJAYAJI.

More than one Jain writer bears the name Haribhadrasūri, but the subject of this paper is the earliest and the most

famous of them: the author of *Āvaśyakasūtravṛtti*, *Yogabindu*, *Śāstravārtāsamuccaya*, and scores of other works small and large. Haribhadra supplies scanty details about himself in the colophon to the *Āvaśyakasūtravṛtti*, but his date is still disputed. The question was opened up by Peterson, who was followed by Klatt, Leumann, Ballini, Mironow, and Jacobi. The last mentioned scholar doubts the validity of an anonymous Prakrt gāthā, which has been the basis for all other chronological statements about Haribhadra and which records the death of the great ācārya as having taken place in 529 A. D., on the strength of (i) a statement in the *Upamitibhavaprapañcākathā* which was finished in A. D. 906 and the author of which, Siddharṣi, calls Haribhadra his preceptor; and (ii) certain identities of expression between Haribhadra and Dharmakīrti. Now as to (ii) Jacobi could have made a much stronger case in as much as Haribhadra actually mentions not only Dharmakīrti but even Bhartṛhari the author of the *Vākyapadīya* (cir. 650 A. D.) and Kumārila (first half of the 8th century) as also a number of other Jain and Buddhistic writers. But we cannot accept the argument (i) because, if we follow the words of Siddharṣi carefully it becomes evident that Siddharṣi does not wish us to regard Haribhadra as his immediate teacher (ch. *Anāgatam parijñāya*). Thus although the anonymous Prakrt gāthā has to be rejected as a chronological evidence, we cannot take Haribhadra at once from the 6th to the 10th century, but have to place him rather in the 8th century after Christ. One evidence of a compelling kind for this is the mention of Haribhadra by Udyotanasūri who wrote his *Kuvalayamālā* in Śaka 699 or 777 A. D. Further collateral evidence enables us to place Haribhadra between 705 and 775 A. D. He lived therefore in that same century which produced great writers like Kumārila, Prabhākara, Śaṅkara and Sureśwara; Bhavabhūti and Vākpati; Śāntarakṣita and Kamalaśīla; Akalaṅka, Māṇikyanandī, Vidyānanda, and Prabhācandra.

The four Appendixes at the end of the paper discuss the question of the relation between Haribhadra and Śāntarakṣita; the necessity of distinguishing between a Vṛddha-Dharmottara (whom Haribhadra quotes) and a later writer of the same

name; the necessity of a similar distinction between two writers of the name Mallavādin; and the indirect bearing of the date of Haribhadra upon the date of Śaṅkarācārya whom Haribhadra does not quote and who therefore cannot be placed a hundred years earlier than the date accepted for him by Professor K. B. Pathak and others. If Śaṅkara had lived 100 years before Haribhadra, the absence of all reference to him or to his works by Haribhadra remains unexplained.

Ravaṇa's Laṅkā discovered. *By* Sirdar M. V. KIBE.

The identity of the Ayodhyā and Citrakūṭa mentioned in Vālmīki's *Rāmāyaṇa* with the modern sites or places bearing those names is not disputed. There is, however, no certainty as regards the places visited by Rāma and his party during his exile after his visit to Citrakūṭa. It appears that he spent nearly ten years in the Daṇḍakā forest and then resided at a particular spot in it for about two years when his wife, Sītā, was abducted by Rāvaṇa. In search of her, Rāma reached Kiṣkindhā. This place could be fixed with certainty on three grounds. The first is that from here Sugrīva, while sending expeditions in four directions, enumerated the countries in each direction. This centre appears to be on the Northern slope of the extreme East of the Vindhya range. Then the distance between Citrakūṭa and Kiṣkindhā is indicated in *yojanas*. In mileage it comes to about 92 miles. This again leads to the same spot. The third ground is that the search party which went to the South immediately entered the Vindhyas after leaving Kiṣkindhā. These three grounds lead to the location of Kiṣkindhā in the present Rewa State. Local tradition also points to the same place.

The next place then to be searched is Rāvaṇa's Laṅkā. The *Rāmāyaṇa* is quite clear that the search party which entered the Vindhya went to the South and as soon as it left its valley came across the Sea, on the other shore of which Laṅkā was visible, perched on the peak of a mountain. There is no sea which washes the Southern side of the Vindhyas. It is not unlikely that the poet might have magnified an expense of water into a sea. If this explanation is accepted, a

mysterious peak which is visible from the neighbourhood of the Amarkantak, the source of the Narbudda, and which is surrounded by marshy land may be identified with Laṅkā.

Local tradition connects the country with Rāvaṇa and this part of the Vindhyas which is called the Kaimur range contains traces of the habitation of pre-historic men.

The early History of the Gurjaras. *By* R. C. MAJUMDAR.

The object of the present paper is to discuss the history of a Gurjara-Pratīhāra ruling family, earlier than and different from the well-known Imperial Pratīhāras. The family was founded by a Brāhmaṇa called Haricandra in the middle of the sixth century A. D. and ruled over territories round about Mandor in Rajputana. This is the earliest Gurjara power in India known to History, and the province over which they ruled was known in later times as Gurjarātra. Among others, the following important points regarding the history of this family have been sought to be established in the present paper.

(1) They were the Gurjaras against whom the kings of Thaneswar, notably Prabhākaravardhana, carried on constant warfare.

(2) They represent the Gurjara power which came into conflict with the Cālukyas of Badami, notably Pulakeśin II.

(3) The Sāmanta Daḍḍa who founded a feudatory ruling family at Broach was the brother of a king of this dynasty and the Broach Gurjaras were thus subordinate to this family.

(4) The Gurjara kingdom referred to by the Chinese traveller Yuan-chwang is the province ruled over by this family and the king whose court was visited by the pilgrim was the fifth king of this family called Tāta.

(5) The power and prestige of this family underwent a considerable decline in consequence of an invasion by the Arabs in c. 725 A. D.

(6) The ultimate downfall of the dynasty was caused by the rise of a rival Pratīhāra family which drove away the Mleccha invaders and established the supremacy over the Gurjara confederacy.

(7) Henceforth the family continued as a subordinate power under the imperial Pratīhāras till at least the beginning of the tenth century A. D. but its end is involved in obscurity.

The Ancient Germans. A few points in their Constitution, Religion, Society, etc, common to them and to the Early Indo-Iranians. *By* JIVANJI JAMSHEDJI MODI.

The last great war, in which many nations of the Indo-Germanic group took part, drew the attention of the whole civilized world to the Germans. According to Gibbon, the ancient Germans have "a stronger and more domestic claim" upon the attention of the Britons. We may add, that they have also some claim upon the attention of the Modern Indo-Iranians—the Hindus and the Parsis. As to the claims of the Britons, Gibbon says that "the most civilized nations of modern Europe issued from the woods of Germany, and in the rude institutions of those barbarians, we may still distinguish the original principles of our present laws and manners". Dr. J. Aikin, a translator of Tacitus, the Historian of the ancient Germans, says: "The government policy and manners of the most civilized parts of the globe were to originate from the woods and deserts of Germany". Mr. Baring Gould, in his book on Germany, says: "Influences have gone forth from her which have deeply affected every one of her neighbours..............The reader of the story of Germany is thus brought face to face with problems of the deepest moment, with which men of deadly earnestness were struggling through the ages, putting forth all the power of their intellect and the force of their vigorous bodies, intensified by the deep-seated religious convictions which they nourished in their hearts. The story of such a people as the Germans could not fail to possess intense interest for any-

one." That story does possess some interest for us, Indo-Iranians, also, but that interest is based on a ground different from that on which the Britons base their interest. The interest of the Britons, lies mostly on the ground that the Germans were looked at as blood-relations, as cousins, and that they (the Britons), to a great extent, built upon the experience of these cousins and looked to them for guidance. The reason of the claims of the ancient German upon our attention is that the ancient Germans were the contemporaries of the ancient Indo-Iranians. So our interest lies more in the line of comparing some of our old religious beliefs, manners and customs with those of the ancient Germans looking at them as our great grand uncles of the past and not in the line of tracing the origin or rise of these from them as is the case with the modern Britons and other European nations, who look at them as their remote ancestors or great grandfathers. Both Ethnography and Philology present this view of the case.

Our authorities for information about the ancient Germans are Caius Julius and Caius Cornelius Tacitus. Tacitus has been held to be wrong, when he said, that the ancient Germans were " indigenous and free from intermixture with foreigners, either as settlers or casual visitors". (a) The burial mounds found in some parts of Germany, (b) the ancient names of some of its rivers and mountains and (c) the division of the people like that of Āryas and Non-Āryas, like that of Iranians and Non-Iranians, into the free and non-free (the serfs, the original natives of the place) among whom intermarriages were prohibited by a law, the relic of which prevented, up to now, a German prince from marrying out of the princely family—all these point to an early occupation of the land by some people other than the ancient Germans, and to the conclusion that the ancient Germans came from somewhere else and occupied the country as conquerors.

They are believed to have a Scythian origin and to have come from a country occupied by the Scythians. Several

facts lead us to that conclusion. (a) Their god Tuist was the god Teut or Teutates, the Celto-Scythian king or hero. (b) The story of Manus, the son of this Tuisto, whose three sons gave their names to three great tribes of the ancient Germans reminds us of the Iranian story of the Avestan Thraetana (Faridun) and of his three sons, who gave their names to three Iranian countries. The name Manus reminds us of the Iranian Manush (Manushcheher, Minocher) a descendant of Thraetaona.

Then, the Scythians, from whom the ancient Germans took their origin, were, as pointed out by Prof. Gutschmid, " Aryan and nearly akin to the settled Iranians". The account of Herodotus about the Scythians supports this conclusion. They had among them the story of the three sons of Targitans and of their trial, which reminds us of the story of the trials of his three sons by the Thraetaona of the Tuesta.

We find that almost a similar story of three brothers is connected with the God Tuist of the ancient Germans, the God Trita Āptya of the Hindus, and the hero Thraetaona Athwya of the Iranians. Again the story of the mares of the Scythian Hercules, disappearing when the hero was asleep, at the instance of a woman who wanted to marry him, resembles that of the Iranian Hercules, Rustam, and his wife Tehmina.

We trace similarity between the institutions of the ancient Germans and the ancient Indo-Iranians in the following matters.

1 Constitution, 2 Religion, 3 Womanhood, (*a*) Social position (*b*) Prohibition against Widow-marriage (*c*) Sutteeship (*d*) Prohibition of Intermarriages, 4 Computation of time, 5 Miscellaneous matters, such as (*a*) Calculation of Wealth (*b*) Deliberation during and after feasts.

1 The Civil Economy of the ancient Germans corresponded, to a certain extent, to that of the Iranians and Indians. The German divisions of houses, *vici*, districts and tribes, corresponded to the Iranian division of houses, (nimāna), viça (विश), Zantu (जन्तु) and danghu or dakhyu (देश.)

The Town-ships of the Germans corresponded to the village-communities of India. Their way of conducting communal business resembled the Indian way. Sir H. Maine has compared these two. Their mode of electing the chiefs or the Panchayat was well nigh similar. The common civil Economy of the ancient Germans, Indians and Iranians shows us, that local Self-Government was, as it were, 'as old as the hills'. As Prof. Rehatsek has said, "it was the feature of the Persian system of administration to allow the nation under their rule a good deal of self-Government and internal independence. Even the civil governors of Judæa.........were always Jews". There prevailed a reasonable democratic spirit or rule. Kauṭilya's Arthaśāstra shows that there prevailed such a spirit in ancient India. It extended even to the Tamil country. The Germans, the Iranians and Indians had both kinds of government in their extended territories, monarchies as well as republics. The Buddhist Jātakas and the Iranian Vendidad refer to both. The "*vox populi*" prevailed in the election of kings and chiefs.

2 As to the Religion of the ancient Germans, Cæsar says: "They reckon those alone in the number of gods which are the objects of their perception and by whose attributes, they are visibly benefited, as the Sun, the Moon, and Vulcan. The rest they have not heard of". Herein we see the old Indo-Iranian worship, "a worship of the wonderful powers and phenomena of Nature," as said by Dr. Whitney. The statement of Tacitus about the ancient Germans, that "they conceive as unworthy the grandeur of celestial beings to confine their deities within walls, or to represent them under a human similitude," seems to be, as it were another version of what Herodotus says of the early Iranians, that "it is not their practice to erect stones or temples or altars, but they charge those with folly, who do so". Arrian refers to Megasthenes, as saying a similar thing of the ancient Indians of the pre-Buddhistic times. What Prof. Gutschmid says of the Scythian worship, that "in true Iranian fashion the gods were adored without images or temples", was true of the Germans also. The German god Wotan, the god of air, who has given his name to a week-day, the Wednesday, is the same as the Vāta, the Iranian Yazata of air

or wind. A kind of divination was associated with Religion among these three people. Their divination from twigs reminds us of the divination among the Iranians through their *barsam*, referred to in the old testament, which, though now made of metallic rods, was formerly made of twigs, and which seems to have been used for divination. All the three ancient nations had divination from birds, horses and fights of individual champions.

3 (*a*) The ancient Germans had like their Indo-Iranian brethren a very great esteem for women, who held a high position among them. They married like them at a mature age, and had like them, monogamy as the rule and polygamy as exceptions. Tacitus presents to us as bright a picture of the position of woman, as that presented by the Avesta for the Iranian women, and by the ancient Hindu books for Indian women. It was the husband who brought the gifts or dowry and not the wife. In ancient Iran and India also, the gifts were from the husband. A desire for a large progeny was common among the three nations. The mothers "suckled their own children" and did not "deliver them into the hands of servants and nurses".

(*b*) They had among them in some states prohibition of Widow-marriages and Suttee-ship, which at one time or another in the history of the ancient Hindus, existed among them. It is a question how old is the prohibition in India. It seems, that (*a*) either there were different views about widow-marriages at different periods of Indian history, or (*b*) that the views differed in different parts of the country. It seems, that the prohibition existed when the ancestors of the ancient Germans and the ancient Hindus—their common Aryan forefathers—lived together somewhere. We learn from Kauṭilya's Arthaśāstra, that widow-marriage was permitted in Candragupta's time. Again, we learn from Firdousi, that in later times also, in the times of Chosroes I (Nowsherwan A'dil, 6th Century A. D.), it was permitted.

(*c*) As to Suttee-ship among the ancient Germans, Baring Gould attributes it rather to want of self-respect, but following Tacitus, we must say, that, as at one time in India, it was resorted to by women out of higher feelings for the sacred tie of marriage.

(*d*) The ancient Germans had, according to Tacitus, no inter-marriages with non-Germans. They had also no inter-marriages with what we may call the aborigines of the country, whom they called, 'non-free, calling themselves who had come from a foreign land, free'. According to Megasthenes and Arrian, there was some prohibition against inter-marriages between the castes.

4 In their computation of time, the ancient Germans, like their brethren the Indo-Iranians "computed time not by the number of days but of nights".

5 They counted their wealth by their cattle.

They were late risers, ate on separate tables or plates and indulged in drinking. Like their Iranian brothers, of whose custom Herodotus speaks at some length, they held deliberations on serious matters in the midst of feasts and after drinking, and confirmed those deliberations in sober hours, the next day.

A Chapter from our early Economic Geography. *By* RADHAKAMAL MOOKERJI.

There can be no greater test of India's economic progress in the past than the age-long distribution and utilisation of forest, agricultural and mineral products from the Himalayas to the Cape and from Sindh to Assam. It is also significant that the distribution is in some cases fairly the same as it had been 25 centuries ago, being determined by the physiographical characteristics of the different forest, pastoral, agricultural or mineral regions and zones in India. The pearls of Ceylon, the corals of the Sea of Barbara, the fores products of the sub-tropical slopes of the Himalayas and oft Assam, the shawls and rugs in the wool areas of the dry N. W. and especially Kashmir and Nepal, the cotton in the old cotton areas of Bengal and Paundra, the Ganges valleys or the Coromandal Coast lands, the horses of the dry hills of the N. W. in Sindh and in Afghanistan, the elephants in the Terai and Assam forests, the salt dug from the Sindh region,--these are as well known to-day as they had been in the ages of the

Arthaśāstra, the *Mahābhārata* or the *Periplus*. The names of towns and regions are sometimes easy and sometimes difficult to identify. The careful and accurate topographical descriptions of the *Periplus* give an identical picture of the economic life of the Tamil country and Malabar and its economic products as modern district gazetteers. The economic regions remain the same and consequently their commercial products.

A classification of these as shown in the paper would show India's resources and her geographical unity and economic destiny through all the long centuries in the past.

Some Aspects of the Problem of the Gupta Era. *By* K. B. PATHAK.

Alberuni makes four statements :—

1 The expired years of the Indian eras were used.

2 Gupta was another name of the Valabhī era.

3 The difference between corresponding Valabhī and Śaka is expressed by the cube of 6 and the square of 4 (241).

4 The initial day of the Valabhī year is Caitra Ś. 1.

These statements are proved by three different and independent methods based on the results of astronomical calculations. In this way Alberuni is completely vindicated against the attacks of his critics of the nineteenth century.

Notes on the early Sea-borne Commerce of Western India. *By* H. G. RAWLINSON.

1 Trade between India and the west travelled by three routes viz :—

(*a*) Oxus route, to Black Sea and Aegean.

(*b*) Persian Gulf route to Mesopotamia and Levant.

(*c*) Red Sea route to Egypt and Syria.

2 Four Epochs of Indian trade :—

(*a*) *Egypto-Semitic period.* Antiquity of Egyptian Mesopotamian culture. Solomon and the Phoenician fleet from Akaba. Rise of Assyria, and of Babylon. Mesopotamian influence on early Indian culture. Ports of Western India: roads, references in the *Jātakas.* Ancient trade indirect through clearing-houses.

(*b*) *Persian Period.* Conquest of the Panjab by Darius.

(*c*) *Hellenic Period.* Alexander conquers Punjab. Leaves his kingdoms in the East to the Seleukids and the Ptolemies. The Mauryas, and sea-trade regulations.

(*d*) *The Roman Period.* Rise of the Āndhras and their control of the Konkan ports. Discovery of the Monsoon, A. D. 45. Its effect, centre of gravity changes to Malabar: the trade in spices, pepper and jewels. Roman coins in S. India. The *Periplus* and Pliny and their accounts of Indo-Roman trade. Sack of Rome 410 A. C.

3. Causes of the decline of Indian trade:—

(*a*) *External.* Collapse of Rome, rise of Mahommedanism.

(*b*) *Internal*; Buddhism succeeded by Brahmanism. Buddhism = Trading class of Puritanism.

4 Indian Imports and Exports and their prices:—

(*a*) Imports—copper, tin, silver, a few drugs.

(*b*) Exports—jewels, pepper, drugs etc.

Great excess of Exports over Imports. Balance made up in *specie.* Disastrous effect of this on Economic position of the Roman Empire. General conclusions.

Jāṅgaladeśa and its Capital, Ahicchatrapura. *By* HAR BILAS SARDA.

Jāṅgaladeśa was one of the several provinces of Bhārata Varṣa in ancient times.

Its physical characterestics as described in Sanskrit books show that it must have been situated somewhere in

what is now known as Rajputana. Nand Lal Dey's opinion that Jāṅgala and Kurudeśa were one and the same country and were known as Śrīkaṇṭhadeśa cannot be accepted. Śrikaṇṭhadeśa was the kingdom of Thaneśvara, and Kuru and Jāṅgala were two separate countries. The term Kuru-Jāṅgala shows that Kuru and Jāṅgala lay adjacent to each other and formed a political or economic unit as Kuru-Pāncāla. A part of Bikaner territory is still called Jāṅgala and the Bikaner Chiefs are called 'Jangaldhar Patshāh' by bards.

The early Cauhāns ruled over the country round Nago (now in Mārwār) and their kingdom was called Jāngaladeśa or Sapādalakṣa. As their power increased and their dominions extended, the whole of their kingdom came to be called Jāṅgaladeśa or Sapādalakṣa. Thus when Sambhar and later on, Ajmer became their capitals, Jāngaladeśa included the greater part of the present Bikaner, Jaipur and Jodhpur states, the whole of Ajmer-Marwara and Kishengarh, and the Eastern part of Mewar. Cauhān Kingdom is called Sapādalakṣa in the Visalpur and other inscriptions, and Sanskrit works are quoted to show that the Cauhān Kingdom was sometimes called Jāṅgaladeśa and sometimes Sapādalakṣa. Jāṅgaladeśa is the ancient and Sapādalakṣa the modern name of the territories ruled over by the Cauhāns.

The Capital of Jāṅgaladeśa is not recorded anywhere. In the collection of manuscripts and transcripts of inscriptions, left by Yati Gyanchandra, *Guru* of Colonel James Todd, there is a paper containing names of 26 countries with their capitals and the capital of Jāṅgaladeśa is stated therein to be Ahicchatra. This Ahicchatra must have been situated within the Jāṅgaladeśa or Sapādalakṣa country. Both the Bijolian Rock inscription of A. D. 1170 and the celebrated Epic, *Pṛthvīrāja Vijaya*, name the capital of the Sapādalakṣa country Ahicchatrapura.

It appears from the account given in the *Pṛthvīrāja Vijaya*, of the origin of the salt lake of Sambhar, that the Capital of Samanarāja, the successor of the founder of the Cauhān dynasty, Vāsudeva, was situated about a day's hard ride from Sambhar. This fact, along with the fact that

the pargannah of Nagor (Nāgapura) has always been and is still called Śvālak, the Hindi form of Sapādalakṣa, and that Nagor is a synonym of Ahicchatrapura, (both meaning " the town of the serpent)" shows that Ahicchatra is the ancient name of Nagor or Nāgapura, and that the present town of Nagor was the Capital of Jāṅgaladeśa or Sapādalakṣa.

Gupta Era. *By* H. A. SHAH.

The starting point of the Gupta Era is determined with the help of Jinasena. He gives it in terms of Vīra years. Valuing the Vīra years into Śaka years and thence; in turn, those Śaka years into A. D. years, the Gupta Era is found to begin in about 200 A. D. A corresponding Buddhist year is also obtained by inferences.

The problems connected with Gupta history are then examined and applied to the chronology which begins from 200 A. D.

Sources of information are as follows :—(1) The records of Chinese travellers. (2) Ceylonese History. (3) History of the Western Kṣatrapas. (4) Gupta inscriptions.

Ceylonese History is expressed in Buddhist years. Dates of Chinese travellers are known in A. D. years. Dates of W. Kṣatrapas are known in Śaka years. Gupta inscriptions record in Gupta years.

They all agree, severally and conjointly, with one another. It is thus shown that the harmony of results is an unprecedented one in the Ancient Indian Chronology. Further treatment of the subject and allied questions are reserved for another occasion.

Inferences and conclusions made on various grounds are summarised as follows :—

(1) The Imperial Guptas are only those kings whose names stand in the geneologies of Bhitari record and Bhitari seal. All the rest belong to a different stock or are off-shoots.

(2) The Gupta Era begins in about 200 A. D.

(3) The Vallabha Era (or Gupta-Vallabha Era) begins in about 319 A. D.

(4) Mālava Era is very likely the Vikrama Era.

(5) Dates of the Nirvāṇa of Mahāvīra and Buddha are about 527 B. C. and 534 B. C. respectively.

(6) Traditional dates are generally correct.

(7) Statements from Chinese annals must be considered seriously.

(8) The accepted date of Fa-hien (399-414 A. D.) is incorrect.

(9) Ceylonese history is generally correct in its chronology.

(10) The Western Kṣatrapas suffered defeat at the hands of the Guptas. We cannot say that they were overthrown by them.

(11) Ideas about Buddhism and Hinduism must be revised. (So too, about the literature.)

XI.—Ethnology and Folklore.

Modern Conscience towards Racial Problems. *By* P. N. DAROOWALLA.

The modern conscience towards various races has been awakened and it is in the fitness of things that the causes of this awakening should be examined to create a bond of union between different races. Thecauses are mainly the spread of democratic ideas among the people of the East. Japan has shown what the East can do by imitating the West with due modification. Language is a bond of union. The great influence of English tongue and English literature on eastern countries and on national aspirations should be noted. The influence of the press in spreading news from the different parts of the globe has contributed to intimate knowledge of different races. The West has turned seriously to study eastern languages and the rich contribution to religion, philosophy, art, has been freely acknowledged by Western scholars. The study of the oldest code of laws of Hamurabi has thrown a flood of light on the ancient civilisation of Babylon and Assyria. The influence on scientific and religious law has been traced to the code of Hamurabi. The teaching of Zorastrianism as it is contained in the Gāthas, has been taken up in the universities of England Germany, France and America. Among the several spells the most effectual is the adaptibility of this ancient Religion.

The *Mahābhārata* and the *Rāmāyaṇa* are the great epics of the Hindus and their contribution to philosophy, legend and religion is immense. They are the living forces among the Hindus and rich narration is hardly surpassed. There are conceptions of law and justice contained in ancient religions. Among the ancient nations, law and medicine were not separate professions. Law is invariably interwoven with religion. English Classics have shown the readers of the West the national character of the Asiatics. Western scholars have found intellectual wealth in these works.

The *Shahnameh* of Firdausi has revealed to the western mind the great and noble heroes that flourished in Persia. The contact of the East with the West has counteracted the tendency towards materialism, while the contact of the West with the East has awakened the national consciousness, to leave off speculation and to turn to commercial and industrial regeneration of Asia. India has come into contact with England and her influence is the greatest. The reformation in England has given rise to reformation in India and old superstitions and caste prejudices are dying out in the wake of education.

Note on the Dissolution of Castes and Formation of new ones. *By* S. V. KETKAR.

1 The usual suppositions that every member of the Hindu community is bound firmly to a certain caste and that castes are air-tight compartments and that if castes are not quasi-eternal entities, they are at least corporations dating from a period too far removed from the historian's gaze, are all unhistorical.

2 The very contrary statement could be made with an overwhelming evidence, that during the last 3000 years there has been no period in the social history, when the process of dissolution of the old groups and of the formation of new ones was not going on.

3 The existence of a number of castes could be explained by one process, viz. when classes, tribes and nations lose their expansive character, they are formed into castes.

4 The sentiments, either expansive or restrictive, arise or decline in classes, tribes and nations; admission of foreigners or otherwise depends on the sentiment of that period.

5 History of the formation of castes means history of the formation of nations, classes and other loose social groups.

6 The line of demarkation between castes on the one hand and classes, tribes and nations on the other, is not so sharp as it is supposed. As expansion or restriction depends on the varying sentiment of the group, description of the group demands greater exactitude. Among the various social groups which we may find named at two different periods of history, whether that group was a tribe or a caste or a class should be determined by actual observation of the facts of the times. Without positive evidence no conclusion should be drawn that the same group observed the same restrictions at both periods.

7 Expansion seems to have taken place not by the corporate effort, even when caste or tribe had a government, but it became possible by active and powerful persons arising in the caste ; they moulded the shape of the caste afterwards.

8 Generally more dominant and powerful castes show tendency towards expansion. Weak castes are generally restrictive.

9 We shall find that non-admission of a foreigner of the group into the group or non-admission of the progeny of mixed marriages into the group are not rules which are strictly followed by any caste whose history is known so far. In this expression a large number of the prominent castes in Mahārāṣṭra such as Chitpavan, Desastha and Karada Brahmins, Marathas, Malis, Sonars and Mahars, the Gauda brahmans domiciled in Deccan are included, so also are included castes like Rajputs and Kayasthas of Northern India and Bengal and Vellalas, Telagus of Madras Presidency and the Karnas and Khandaits of Orissa and Bhils, Gonds, Katkaris, Kaikadis etc.

10 It should be stated that this process has been taking place for centuries, that is, long before the modern creed of social reform was born.

11 When a new class or a nation builds itself it slowly incorporates (1) families and classes, (2) sub-castes of other castes. When such a process takes place, a new principle of social formation arises with it.

12 When new principles of social formation arise, old castes crumble and new groups arise.

13 In a number of cases in the new group old ethnic distinctions are retained, the sub-castes and families of various origin become sub-castes of the new group. Greater contact and stronger affinity developing subsequently, greater unity is created and the new caste acquires solidarity.

Marriage Customs in Western and Eastern Nations.

By S. S. MEHTA.

Marriage is an event of gravity and essential religious elevation in the life of the Hindu. Great importance is attached to it among all nations, who look upon Matrimony as a form of contract. The wife leaves her father's protection and seeks shelter under the roof of her husband where pure and happy love reigns. In a society so primitive as that of the Vedic times, there was no religious obligation that every girl should be married. It is also gathered that the bride was almost of equal age of puberty with the bride-groom during the times of the Vedas; the Smṛtikāras made them younger in age, and enjoined the time of celebrating nuptials earlier; and put a mandate over all girls for compulsory marriage. The bride had a voice in selecting her husband for life during the Vedic ages; whereas latterly, the parents managed all about the marriage. Polygamy was allowed among Hindus as also among many other nations; but it was confined to kings and wealthy lords, as a general rule.

In the Sūtra days, six forms of marriage prevailed; and two others came later to be added to these :—

(1) Brāhma—The father pours out a libation of water and gives his daughter to a suitor-student.

(2) Daiva—The father decks his daughter with ornaments and gives her to an officiating priest, when sacrifice is being performed.

(3) Ārṣa—The father gives his daughter for a cow or a bull.

(4) Gāndharva—The lover takes and weds a loving damsel.

(5) Kṣatra (Rākṣasa)–The bridegroom forcibly takes a damsel, destroying her relatives by strength of arms.

(6) Mānuṣa (Āsura)—The suitor purchases a damsel from her father.

(7) Prājāpatya—The father gives away his daughter to the Suitor, saying ' Fulfil ye the law conjointly '.

(8) Paiśāca—A man embraces a woman deprived of consciousness—it was a form of rape.

Marriage marks, no doubt, an entrance to a new stage of life—the life of a householder—the chief part of religious ceremony in a praiseworthy form of marriage among the Hindu consists of the bride-groom sending messengers to the house of the girl's father, reciting Ṛv. X 85, 23; and if the proposal pleases both the parties, the promise of marriage is ratified, and both parties touch a full vessel into which flowers, fried grain, barley and gold have been put, and then they recite a formula. The bride-groom then performs a sacrifice. On the appointed day, the bride's relations wash her with water fragrant with the choicest fruits and scents, make her put on a newly dyed garment, and cause her to sit down by a fire, while the family Ācārya performs a sacrifice. The bridegroom, who has also bathed and gone through auspicious ceremonies, is escorted by happy young women who are not widows, to the girls house, (Sāṅkhyāyana).

The Institutes of Manu enumerate all the forms noted above; but Manu's sense of decorum rebels aginst some of them; and he observes : "The Paiśāca (seduction) and the Āsura (sale) must never be used"; so also: "No father who knows the law must take even the smallest gratuity for his daughter; for a man who, through avarice, takes a gratuity, is a seller of his offspring." We are, again, reminded that even a Śūdra should not take a nuptial fee; and that such a transaction has never been heard of. Widow remarriage prevailed in Manu's time, although it was not approved of by the orthodox. Inter-marriage was freely allowed provided that a man of a lower caste did not marry a woman of a higher caste. Marriage between relations was strictly

prohibited in Manu's ti "A damsel who is neither a *sapiṇḍa* on the mother's side, nor belongs to the same family on the father's side, is recommended to twice born men for wedlock and conjugal union." (III 5) The ancient custom of raising issue on a brother's widow seems to have fallen into disuse in Manu's time.

In the Puranic age, marriage was arranged by the parents of the bride or the bride-groom; but no gifts were settled; but the husband made a gift in advance which was the wife's property (Strīdhana) ever after. In the modern age, castes have become more rigid, and Brahmans never marry any woman except one of their own caste.

The ceremonies :—

(1) Vāgdāna—Betrothal.

(2) Sīmānta-pūjana—The worshipping of the boundary of the town or village—and receiving with due hospitality the bride-groom and his party.

(3) The arrival of the bridegroom at the house of the bride.

(4) Madhuparka—The mixture of treacle and water offered for drink; and the adoration of the bride-groom and party.

(5) Viṣṭarāsana—The offering of the Darbha-seat to the bride-groom.

(6) Mangalāṣṭaka—While veiling and curtaining the bride, benedictory verses are recited to prepare them to see the faces of each other.

(7) Paraspara-nirīkṣaṇa—Seeing the faces of each other.

(8) Kanyādāna—Actual gift of the bride to the bride-groom.

(9) Suvarṇābhiṣeka—Giving a bath with a gold piece in the water.

(10) Sūtraveṣtana—Tying of the auspicious thread of marriage.

(11) Kaṅkaṇa-bandhana—Putting on of the bracelet.

(12) Akṣatāropaṇa-Putting in of auspicious rice mixed with milk, ghee &c.—on each other's heads.

(13) Tilaka-puṣpamālādhāraṇa—Anointing each other by the marrying couple, with an auspicious nuptial mark on the forehead and garlanding each other.

(14) Maṅgala Sūtra—Bestowing an auspicious decoration on the bride.

(15) Vastragranthi-bandhana—Tying up of the garment knot of both.

(16) Vivāha-homa—The connubial fire and sacrifice.

(17) Pāṇigrahaṇa—Joining the hands in marriage.

(18) Saptapadī—The seven steps on small heaps of rice.

(19) Dhruva-darśana—The sighting of the Pole Star, Arundhatī and the seven-sages-constellation.

(20) Gṛhapraveśanīya-homa—The sacrifice to the holy, fire before entering the bride-groom's house.

(21) Airiṇīdāna—In a bamboo basket, grains &c., are filled and given away in alms.

Most of these ceremonies are common to Brahmins of different provinces and presidencies in India; but the Prarthana Samaj, the Arya Samaj and such other institutions that are mostly the result of modern civilization, generally dispense with many details and also with many main rites, out of those that are noted above. The Parsi has much in common with these ceremonies. According to Dr. J. J. Modi the ceremony of marriage can be divided into three main groups :—

(*a*) Mutual presents ; (*b*) Witnesses ; (*c*) Ceremonies.

Mutual Presents.

(1) Money payment ; (2) rings ; (3) dress ; (4) articles of food.

1 Among the Romans and ancient Christians, this payment of money was known as Earnest-money ; and among ancient Jews, it was essential for a betrothal. It may be symbolic of purchase-money.

2 Rings are given as gift ; and may be a remnant of bride-purchase, when marriage must have been equivalent to bride-catching. In the Christian marriage service the ring is put on the book. The Doges of ancient Venice threw

on the Ascension day every year a ring in the Adriatic-which ceremony has been immortalized by Byron. According to Gibbon, a ring in the 5th century A. D. was regarded as a pledge of affection.

3 Dress is regarded as auspicious. The dress among the Hindus, the Parsis and the Mahomedans is peculiar to each but the common characteristic is that it is rich and pompous. The Roman bride used to wear a white gown.

4 Food—Milk, curds, honey, sugar, cocoanuts &c., form the principal articles for mutual exchange. So far the Parsis have common features with the Hindus; but the Parsis would add fish to all these as a special feature of their marriage-rite.

Witnesses.

(1) Relations and friends on both sides;
(2) Fire;
(3) The departed souls;
(4) Musical bands;
(5) Marriage feast.

These are common to the Hindu and the Parsi. Among the ancient Romans, holding of fire and water as necessaries of life, before the bride, prevailed at the time of marriage. In some parts of Australia, the brides carry fire to the houses of their respective bride-grooms. Among the Assyrians, the father of the bride-groom invoked the double of Nebo and Merodach and prayed to them to grant long years of happiness to the young couple. Moreover, among the ancient Greeks, the marriage feasts were believed to signify that they served as an evidence of marriage.

Rites and Ceremonies.

(1) Planting the Mandapa branch; (2) Marking the foreheads of the couple; (3) Marking the doorposts of the house; (4) Orientation or turning to the East; (5) Throwing of rice over the couple; (6) The clapping of hands; (7) Presenting water before the couple; (8) Garlanding; (9) Breaking articles of food; (10) Sacred baths; (11) Curtaining and Veiling; (12) Hand fastening; (13) Skirt-fastening; (14) Circling and tying the knot; (15) Feet-washing; (16) Eating together.

Most of these ceremonies are a common feature of the Hindu and the Parsi.

1. Planting a branch and erecting a mandap is common to the Hindu and the Parsi. " The same idea is to be traced in the form of survival, in the custom of giving a branch of laurel to a bride which is found, according to Mannhardt of Carnac in Brittany, in the introduction of a decorated pine bough into the house of the bride, met with in Little Russia; as well as in the ceremony of carrying the May adorned with lights before the bride and bride-groom in Hanoverian Weddings."

2. According to Col. Dalton, marking the foreheads prevails among many aboriginal tribes of Bengal ; and Mr Sidney Hartland describes the same and considers it, along with some others, as a relic of ancient blood covenant observed on Marriage. The Svastika of the Hindus can be traced in a modified form to the Tau among the Egyptians and the Cross of the Christians.

3. Among the ancient Romans, the bride applied oil to the door-posts, oil being regarded as a symbol of prosperity.

4. On the custom of orientation, Mrs. Murray Aynsley says :—

" In European common life also, when passing the wine or dealing a pack of cards, we commonly hear it said that this should be done the way of the sun, and the same persons deem it most unlucky, if through inadvertence, the bottle be sent round the other way."

5. Grain is symbolical of plenty. In Poland the father of the bride-groom, after the nuptial benediction, welcomes the married couple into his house, by throwing over their heads grains of barley corn (Howett). Among the Hebrews, grains of barley were thrown in front of the couple, meaning to denote their wishes for a numerous progeny. In Nottinghamshire and Sussex, the sprinkling of rice over the couple was a prevalent custom, and in ancient Spain, not only the parents of the couple, but even the passers-by sprinkled corn. In England, they throw rice after a newly married couple.

6. This ceremony is peculiar to the Hindu and the Parsi; and Rev. Padfield assigns a peculiar significance to it.

7. Among the ancient Romans, both the bride and bride-groom touched fire and water, because all things were supposed to be produced from these two elements (W. Tegg's "The Knot tied").

8. In ancient Greece, the priest put a crown on the head of the bride-groom; in Athens, a friend of the bride put on a crown; in Egypt, the bride put on a crown; in Norway, the bride put on a crownlike jewel; in old Anglo-Saxon Churches, the priests blessed the pair and put garlands round them. "Bride-groom and bride were crowned as victors, assuming their purity over the temptations of the flesh." "The bride-groom's wreath was for the most part of myrtle, the bride's of Verhena."

9. In Scotland they used to break a cake over the head of the bride at the threshold of her husband's house, when after marriage she entered it for the first time. Among the Hebrews, a similar custom prevails. Among the Greeks, according to Dr. Potter, when the bride-groom entered the house with his bride, it was customray to pour on their heads, figs, and diverse other sorts of fruits, as an omen of future plenty.

10. Among the ancient Greeks, among the ceremonies bearing religious character which preceded the wedding, an important part was played by the bath. Among the ancient Hebrews, sacred baths preceded solemn religious rites.

11. "The veil put on by the Christian bride is a remnant of the old custom, signifying that she conceals her face from her husband." The early Christians derived it from the Romans. Among the Hebrews, the bride put on a veil which is to be removed after marriage.

12. Among the Christians, "after the Council of Trent, it was customary in many places for the priest to entwine the ends of his stale round the joined hands of the bride and the bride-groom at the words—'those whom God has joined together'—in token of the indissoluble union thereby effected"

(M. E. Howett). In Finland the father of the bride-gromo fastened the hands. Among the Greeks this ceremony was considered as ratifying the agreement of marriage. Among the Assyrians, the father of the bride-groom fastened the hands of the couple with a woollen thread.

13. The bride and bride-groom, among the Hebrews, were made to walk under a canopy of cloth, signifying unity of protection. Among the Santals, the clothes of the married couple were tied together as a symbol of union.

14. " A circle signifies endless union. " In France, a canopy is held over the couple during the ceremony; and in a certain part of Spain, the custom is prevalent.

15. In Scotland, the unmarried friends of the bride washed her feet on the eve of marriage; the custom, in a similar way with a modified form, prevailed among the ancient Romans and Hebrews, as well as ancient Greeks.

16. Among the ancient Romans, "Confarreatio" was a ceremony for the bride and the bride-groom to taste together the holy cakes—also called "panis farreres"; among ancient Greeks, they ate a quince. This custom similarly prevailed among the Hebrews, the Melanesians, the Papuous, the Yezuadees and many other races as well as nations.

A brief History of the Survey of the Ethnography of Bombay. *By* J. J. MODI.

On account of its geographical situation and its commerce and on account of its rise to the position of a great city from its original state of being a fishing village, Bombay is spoken of as 'The Alexandria of India'. It is the brief historical survey of the Ethnography of such a city, made beautiful by the hand of Nature and then by the hand of Man, that forms the subject of this paper.

Bombay owed its birth to the last throbbings of the Volcanic pangs of the Western coast of India in a very early pre-historic age. The objects found during the excavation of our Prince's Dock and some stone implements discovered on the shore of the beautiful Back Bay, show that the level of Bombay has undergone a change in pre-

historic times, since the time of a general subsidence, which, on account of its having gone to the Bombay coast its present outline is spoken of as the 'Bombay Break-off'.

Going to the very dawn of history—history presented not by inscriptions, coins, monuments or books, but by some coastal finds—we find some evidence of Bombay being inhabited by some people in the Neolithic age. In a paper entitled 'Some rude stone implements from Back Bay, Middle Colaba, Bombay', read by Mr. Swynnerton, before the Anthropological Society of Bombay, some flints found on the shore of the Back Bay, were exhibited as stone implements used by the prehistoric people who inhabited our island of seven islets. These Back Bay 'coast-finds' are compared with the 'coast-finds' of Denmark which are associated with the well-known Danish Kjokhin middlings or kitchen middlings or as they are called, the refuge-heaps found along the coast of Denmark. Again close to the flint flakes at the Back Bay was found a fossil tooth "the first fossil belonging to a mammal found at Bombay". These Back Bay pre-historic people were in very low stage of culture, people like the 'cave-men of Europe' though not necessarily of the same age.

Coming to the historic age, we may divide the period into Hindu period, Mahomedan period, and coming down to our times, the European period, the period of the advents of the Portugese, the French, the British &c. The Hindu period had the following dynasties:—1 The Mauryans, 2 the Śātakarṇis or the Śālavāhanas, the Āndhrabhṛtyas of the Purāṇas, 3 the Rasṭrakūṭas, 4 the Maurya chiefs of the Konkan, an offshoot of the early Mauryans, 5 the Cālukyas (7th century A.D.), 6 the Śilars or Silaharas, 7 the Devgir kings.

In the discovery at Sopara, about 30 miles from Bombay on the B. B. C. I. Ry., of a fragment of Aśoka's edict, we have the evidence of the Mauryan rule, during which time the Kolis were the first settlers of Bombay. They were the Dravadian aborigines of the country. The presence of the Śātakarṇis who overpowered the Śakas, the Pahlavas an off-shoot of the Parthians of Persia, the Yavanas &c. is

evidenced by a numismatic find. A further band of Kolis came here during this period. It is of the India of this time that Ptolemy speaks. It is at about this time that the early settlers of Bombay, the Kolis, came into contact with the traders from the West, among whom there may be even some Sassanian Persians. In the discovery of the 'Dramma' (Pers. dirhem) at Cavel, Mr. Edwardes finds "the first direct evidence of Bombay's connection with civilization" a connection which became stronger in the times of the Hawya chiefs of the Konkan. With the next dynasty of rulers, the Śilaharas, there came to Bombay and to the adjoining country the Agris, the Kayashths, the Arabs, the Parsees and Israels. With the advent of the Devgiri kings, and among them especially of Ramdeo, Bombay began to assimilate to a greater extent the Hindu Civilization of North Konkan. Then there came to Bombay, people of a number of castes. The Prabhu, the Palshikar Brahmins, the Bhandaris, the Panchakalsis, the Thakurs and Bhow, all followed after one another.

Coming to the Mahomedan period, we find the advent to Bombay and to the adjoining country of the Arabs. The Konkan Mahomedans are somewhat connected with this advent. Latterly there came other Mahomedans from northern India.

Totemism, Exogamy and Endogamy among the Aryan and Dravidian Hindus. *By* J. A. SALDANHA.

The caste-system is more rampant among lower classes of Dravidians than other peoples in India. And their society discloses a totemistic exogamous organisation which closely resembles that prevailing among aboriginal tribes in Australia and North America. These systems can hardly be traced among the *ancient* Aryans in Europe, Central Asia or India. Exogamy as such can first be traced only in the Sūtra period of the Vedas, among the Aryan Hindus. It seems therefore on a careful study of comparative ethnology

and history, that the Aryan Hindus are indebted for their exogamous system, prohibition of marriages of sister's children and some other phenomena in their social life, to the practices prevailing among the Dravidians with whom they coalesced. The author discusses the theory in the light of recent ethnological lore.

XII.—Technical Sciences.

Mathematics.

The Constructive Geometry of Altars in the Vedas. *By* R. N. APTE.

1 Constructive Geometry of Altars as treated in the Śulvasūtras is given and discussed by Dr. Thibaut and Dr. Bürk. They have also shown how the construction of Altars in the Vedas presupposes an amount of geometrical knowledge. It is the object of this paper to give some new points in this connection.

2 The method of determining the East-West line as given by Varāhamihira stated. It is shown from passages in the Vedas that the central East-West line of the Sacrificial compound is a very important line.

3 The Cayana or high-Altar. of bricks considered and passages from the *Taitt. Saṃ.* and *Taitt. Brāhmaṇa* cited to show the Nakṣatra bricks and the way of consecrating and laying them on the Cayana.

4 This shows that the East-West line was determined by the rising and setting points of the asterism Kṛttikā and verified by the Sun's position on the equinox day; and from this the age of *Taitt. Saṃ.* determined to be about 3000 B. C.

5 The next line of reference in importance is a North-South line. The way in which this was determined in the Vedas pointed out.

6 The Akṣṇyā (अक्ष्ण्या) the hypotenuse of a right angled-triangle given in the Vedas explained and the way in which $\sqrt{2}$, $\sqrt{3}$, $\sqrt{4}$,............found by the Vedas by geometrical construction pointed out by considering the Ekaviṁśāgni of Aśvamedha and the Anekavidhapuruṣa Cayana.

7 The Śulvasūtras were only meant as guides for practical construction and cite the theorem of the hypotenuse, or

the theorem of Pythagoras as it is called, as already well-known.

8 The Mahāvedi—the measurements of it given in the Vedas geometrically discussed, which leads to the conclusion that the theorem was known in the times of the Vedas.

Nakṣatras and Precession. *By* G. R. KAYE.

Mr. G. R. Kaye very briefly refers to the generally accepted view, that the nakṣatras are certain constellations that mark the ecliptic. He distinguishes the ritualistic, stellar and scalar aspects of the nakṣatras and hints that these may indicate a mixed origin. He refers to certain passages in early texts that indicate, that the constellations revolve with reference to the nakṣatras, points out that this implies a knowledge of precession, and suggests that the nakṣatras conceived as an ecliptic scale whose initial point is the vernal equinox, would fit these passages, and would perhaps clear up many other controversial points.

Astronomical Phenomena in fixing the Chronological periods in Indian History. *By* V. B. KETKAR.

1 The Aryans lived in an age when there was no public era.

2 The existence of the celestial eras.

3 Aryan observations available for the determination of the ancient dates.

4 The date of the Solstices in the Vedāṅga Jyotiṣa.

5 The age of the Kṛttikās' rising due east.

6 The date of the occultation of the star Puṣya by Jupiter.

7 The date of the first appearance of Canopus on the ridge of the Vindhya Mountain.

8 The drinking off of the sea by Agastya explained.

9 The date of the Battle of Kurukṣetra.

10 The Gavāmayana, which resembles in sound the Egyptian word Epagomene used in the same sense.

Medicine.

Rasavidyā or Alchemy in Ancient India. *By* R. V. PATVARDHAN.

It is difficult to say definitely in what country Alchemy arose. But neither Egypt, nor Greece could be its birth-place. The works of Geber, the Arabian Alchemist, are the oldest genuine works extant, and treatises attributed to the Egyptian Hermes are undoubtedly spurious. Greek philosophy was anthropomorphic and never indulged in occultism. Mysticism in Greek philosophy is due to the influence of oriental transcendentalism of which neo-platoism or pseudo-platonism was the result. The 3rd and 4th centuries of the Christian Era are notorious for forgeries in the sphere of occultism. Alchemy or Chemia was not derived from Chemi; neither was *chemi* ever a name of Egypt. Chemia was derived from *chymies* a word coined in the 3rd century A. C., and the word chemia in the sense of Alchemy was first used by Snidas a lexicographer of the 10th century,

The tradition that Emperors Severus and Diocletian caused the Egyptian works on Alchemy to be burnt, finds no support from trustworthy authors. There is no reference to Alchemy in the works of Herodotus, Diodorus, Plutarch and Pliny. The medicinal properties of mercury, which plays an important part in alchemy, were unknown to the Greeks. Consequently the Greeks must have been unacquainted with Alchemy before the 3rd or the 4th century A. C.

On the other hand we find that in the Śatakas of *Bhartṛhari* who flourished about the 1st century A. C. there are clear allusions to alchemy. In the alchemical works compiled by the Greeks there are references to Oriental and Persian authorities, and Ammianus Marcellinus a great Roman historian of the 4th century tells us that the *magi* or Persian priests derived their *secret arts* from the Brahmins of India. From this it appears probable that India and not Egypt was the birth-place of Alchemy.

Metrics.

A short Note on the Use of Metres by Sanskrit Poets. *By* A. S. BHANDARKAR.

Need of artistic appreciation and pure literary criticism as such in Sanskrit literature Metric fault Yatibhaṅga occurs when a pause due to a metre falls in the middle of a word in the absence of sandhi. There is a science and art underlying the use of metres, in general, by Sanskrit poets especially Kālidāsa.

Well suited for narration due to their shortness-*Anuṣṭubh*, *Upajāti*, *Vaṁśastha* most prominent; *Vasantatilakā*, *Mālinī* following. Appropriate use of *Mandākrāntā* in *Meghadhūta*, of *Anuṣṭubh* and *Viyoginī* in *Kumārasaṁbhava* II, *Raghuvaṁśa* X and *Kumāra*. IV, *Raghu*. VIII respectively. A change in metre relieves monotony and is often introduced at the end of a canto to give the subject matter a kind of finish.

A Sanskrit drama with its essentially lyrical nature and comparatively slow development of action offers good opportunities for a variety of meters in consonance with the prevailing sentiment or atmosphere. *Sragdharā* mainly a metre of heroic and kindred sentiments and seldom used in dramas of love and pathos; therefore, its abundance in *Mudrārākṣasa* and *Veṇīsaṁhāra* end all but total absence in Kālidāsa's works. Also, scarcity of *Śikhariṇī*, abundance of *Āryā* and liberal use of *Vaṁśastha* and *Upajāti* in these works as compared with those of other poets.

Sragdharā.—Used chiefly in dramas of heroic and kindred sentiments and in invocations. Suited for descriptive purposes on account of its length.

Śārdūlavikrīḍita :—Mainly a metre of softer sentiments and nature's normal moods. Among longer vṛttas most favourite with Kālidāsa after *Vasantatilakā*. Its length suits it for descriptive purposes like *Sragdharā*.

Śikhariṇī :—Sparingly used by Kālidāsa. Fit for conveying pathos because of its syllable arrangement.

Mandākrāntā :—The most symmetric of metres. Its four opening long syllable justify its name and fit for depicting nature in her calmer aspects.

Hariṇī :—A somewhat symmetric metre having a sad, sweet melody when sung in tune. Unlike other poets Kālidāsa uses it only on choice occasions. Some *Hariṇīs* in *Uttarārāmacarita* III are also beautiful.

Pṛthvī :—Sparingly used by Sanskrit poets. Examples of it in *Uttara.* and *Veṇī.* are charming because of alteration and mainly concern the heroic sentiment. Equally symmetric with *Hariṇî.*

Mālinī :—After *Vasantatilakā*, most used among metres of medium length. Its opening short syllables render it fit for conveying hurry, excitement &c. Frequently used as a change metre by Kālidāsa in his narrative poems.

Vasantatilakā :—Most used among metres of medium length. Kālidāsa is specially fond of it and often uses it as a change metre in his non-dramatic poems.

Vaṁśastha, Indravajrā, Upajāti :—Comparatively scarce in the works of dramatists other than Kālidāsa, probably because the latter was used to them in his narrative poems.

Śālinī :—Rarely used. Wide difference between the number of its short and long syllables. Those occuring in Uttara. contain subject matter noble or dignified in tone.

Āryā :—Most favourite with Kālidāsa but least so with other poets. Its preponderance in *Mālavikāgnimitra* points to Kālidāsa as being the author of the work.

Anuṣṭubh :—A metre of old and sacred tradition. Therefore, frequently used in invocations, propitiation of gods and in connection with revered characters generally containing high moral, ethical or similar ideas. Fit vehicle for alaṅkāras like Upamā, Dṛṣṭānta etc. because of its shortness.

Music.

Early History of Music. *By* E. CLEMENTS.

Early history of music involved in confusion. The musical training and surroundings of the European make it

almost impossible for him to understand oriental music. His prejudices illustrated.

It is fallacious to take the theories of ancient writers on music at their face value. They knew nothing of science. The idea that Greek music was based mainly upon the scale of Pythagoras is also erroneous.

The nucleus from which the chief systems of oriental music sprang was a musical civilisation in Central Asia which favoured the scale (*odhava*). In Assyria and Egypt the harp was the chief instrument. In ancient Greece the lyre became many stringed like the harp. In India the harp was probably in vogue in Aryan times. It was succeeded by the *vīṇa*

In Greece 'the art of the sārangi-player' was brought to a high degree of excellence. Many-stringed instruments led to an intricate notation and a system of keys. The tradition of all this had its effect on the evolution of modern European music, which is distinguished by (1) relying for unity of mode upon successions of chords, not so much upon a chief note (*saṁvādi* or *aṁśa svara*), (2) a system of keys, by means of which one can repeat phrases of melody at different pitches and so introduce variety (modulation), (3) the leading note, the tonic or fundamental note of every mode having a note a semitone below it which leads up to it. The last property leads to a paucity of modes. To counterbalance this, modulation is resorted to more and more. The second property made temperament of some sort inevitable. Equal temperament was finally adopted about 1850.

In India, the Aryan system appears to have been superimposed upon an indigenous or Dravidian system. Indian music resembles ancient Greek music to a remarkable extent, in its modes and their derivative the *rāgas*. The music of Europe and that of India belong to the same family. It may be inferred that each has something to gain from the other.

Principles of melodic Classification in Ancient Indian Music. *By* V. G. PARANJPE.

The pre-requisites of the study of the ancient melodic

classification, as known from Bharata, would be the interpretation of technical terms like Mūrchanā, Jāti and Nyāsa and a differentiation of the absolute and the relative pitch in point of æsthetic valuation.

In the relative pitch Sā is always the key-note, in the absolute any note may be the key-note. Old Indian music employed the absolute pitch; the relative pitch is used now, while both were in use in the mediaeval period.

The Grāmas were sets of fixed notes, not varied ordinarily, which with a key-relationship established among themselves formed the Mūrchanās or musical scales.

Mūrchanās were understood by mediaeval writers to denote pitch, but from indications such as the identity of Mūrchanās in the two Grāmas, these being susceptible of variation &c. they clearly denoted scales in Bharata's book.

Of the 14 Mūrchanās only 9 were actually used. The number of Mūrchanās and Tānas was a matter of theory only.

The Jātis were the genera under which the musical modes were grouped together, these being the modal elements of which the Nyāsa was the final note constituting the key-note in all Jātis except two, where it occurs as an ending note not amounting to the key.

Tables of the twenty-two Śrutis and the Svaras, of the scales and Jātis and the intervals used, with their values in relative pitch, have been given in the body of the essay in their proper places.

The ancient system consisted in sorting out melodies under modes, which were recognized as varieties of the Jātis, amongst the variable modal elements being the Aṁśa, the Apanyāsa, and occasionally the Nyāsa, amongst the invariable ones being the Sañcāri Varṇas and the proportions which in the Svaras were blended to form the melody and the Nyāsa. The Jātis themselves, when divested of the ten modal tissues were reduced to the skeletons of the scales and the scales were reduced to the two Grāmas. The modal elements of the Jātis in Bharata indicate exceptional powers of observation and analysis and scientific enumeration and

classification. The system, however, did not retain its vitality long. The Jātis soon made room for the Rāgas, the chromatic intervals and the relative pitch and the old classification became useless. The insufficiency of the number of Grāmas being at the root of the disappearance of the old system, it is a question whether the old system of classification, which has at least a scientific basis and has a parallel in the Greek system of scales and letrachords, could not be revived with advantage, care being taken to arrive at a sufficiency of Grāmas that would meet all the requirements of modern music.

XIII.—General.

Sanskrit and its Claims upon our Attention. *By* GOVIND SADASHIV APTE.

1 We meet here to consider in what best way the study of Sanskrit may be encouraged.

2 Any wrong notions about Sanskrit can be corrected by attending conferences like the present.

3 A magazine like the Bhandarkar Research Institute Magazine will greatly facilitate the work of research and will supply a long-felt need of Sanskrit scholars and researchers.

4 Dr. Schröder's proposal to make Sanskrit the Lingua Franca of India is not feasible; but it rests with us to allow Sanskrit to remain a dead language or to make it a revived, if not a permanently living, language.

5 The grammar of Sanskrit may be written in a simple language and the language itself may be made more elastic and richer than at present by writing works in Sanskrit on Modern Sciences.

6 The Gwalior Darbar Government is contemplating a scheme for organizing a library of Sanskrit MSS. in the Gwalior State.

7 The following are the results of my study of the Hindu Astronomy, in which I am interested.

(1) From the verse 99th Ch. IV, 18 of *Jñaneśvarī* and from some references in *Sūryasiddhānta*, *Siddhāta-śiromaṇi* and *Grahalāghava* I infer that the Hindus were acquainted with the Copernican System of planets, two centuries before Copernicus lived.

(2) The verse 19th of the *Vedāṅga Jyotiṣa* is considered unintelligible; but I think that the interpretation which I propose in this paper, gives a meaning to the verse and the information we thus obtain is some useful knowledge of Astronomy.

(3) Lastly, I show the validity of the *Vedāṅga Jyotiṣa* by interpreting the 12th and 14th verses of the *Yajurveda Jyotiṣa* and the 5th verse of the *Ṛgveda Jyotiṣa*, in the way I have indicated in this paper. These verses also are some of the 12, which are not yet properly understood.

Old Gujarātī Poets: A Critical Exposition. *By* D. D. DAVE.

Old Gujarātī poets are five in number, Narsiṁh and Miranbai being the chief. All of them flourished between the fifteenth and sixteenth centuries. All of them were not born poets, but were substantially influenced by the Literary, Political and Religious state of Gujarat. Some of the individual characteristics of all the five poets in succession. Then are given some general traits distinguishing the whole group, such as the predominance of Bhakti sentiment, inattention to nature for its own sake, pictures of domestic life and so on. Then the conclusion that the old group of poets had certain characteristics in common, as distinguished from other groups, that they had inherited the language in a form which they developed and enriched by their writings and thus cleared the way for the change in the Vernacular as it is spoken to-day.

Note on the Ancient History and Geography of the Konkan. *By* P. V. KANE.

From ancient times, the Western coast of India has been in close communication with the countries in the West. Scholars hold that many of the articles, with which Solomon (1016-976 B. C.) adorned his court, came from India and that Ophir often mentioned in the Old Testament as the city of gold and precious stones is to be located in India, the probability being that it was Sopara. It can be established with tolerable certainty that from about 600 B. C. Western India carried on a vast trade with Babylon and other Western countries. The Bāveru Jātaka refers to Babylon and several other Jātakas speak of Suppāraka (Sopara) and Bharukaccha

(Broach). Megasthenes refers to the Pāṇḍyas and to Taprobane (Ceylon). Strabo, Pliny, the *Periplus of the Erythræan sea* and Ptolemy testify to the large trade between India and the West. The large finds of Roman coins, particularly in southern India, confirm what Strabo and the other writers say.

The Konkan is a poor country, but its ports, *viz.* Sopara, Chaul, Kalyan, Thana rose to be flourishing marts because they served as the emporia for the commodities of the countries beyond the Ghats.

In very ancient times the Konkan country was known under the name Aparānta. The *Arthaśāstra* of Kauṭilya (300 B. C.) refers to the heavy rainfall in Aparānta. A fragment of Aśoka's eighth edict was found at Sopara and the word Aparānta occurring in his fifth edict probably refers to the Konkan country. An inscription at Nasik and that of Rudradāman speak of Kuhuraparānta. The Mahāvaṁśa speaks of missions sent by Moggaliputta Tissa to Vanavāsi and Aparāntaka and other countries. These references to Aparānta and Kālidāsa's mention of it in the *Raghuvaṁśa* establish that Aparānta was the strip of country between the sea and the Sahya north of Banavasi and south of Surat. The Aparānta king referred to by Kālidāsa may have been a Traikūṭaka, that dynasty being so named after the mountain Trikūṭa mentioned in the *Raghuvaṁśa.* The same country was later on designated Konkan. The northern part of Aparānta from Thana was included in the kingdom of Lāṭa, Navsari being its Capital. Ptolemy speaks of Larike. The *Mahābhārata* (Anuśāsanaparva) and the Mandasor Inscription of A. D. 473 refer to Lāṭa.

The earliest reference to Konkan perhaps occurs in Strabo (1st quarter of first century A. D.) who speaks of a country called Koniakoi. Bhīṣmaparvan includes Konkan in the list of countries. The *Bṛhatsaṁhitā* of Varāhamihira (first half of 6th century) speaks of the people of Konkan. The Aihoḷe inscription of 634 A. D. tells us that Kīrtivarman I (550-567 A. D.) overthrew the Maurya rulers of the Konkan. Hiuen Tsang gives us a description of Kong-kin-na-pulo. His references to the climate, the soil and the complexion

of the people and the fact that other Chinese accounts tell us that Kong-kin-na-pulo was one day's journey from the sea make it almost certain that the Chinese traveller speaks of the kingdom of the Kadambas of Banavāsī which then included the Belgaum and Dharwar districts. It is thus established that from at least 500 A. D., the term Konkan came to be generally used, though how much earlier, it is difficult to say.

The extent and boundaries of Konkan towards the north and south cannot be ascertained with precision. But as a grant of the Rāṣṭrakūṭa Kṛṣṇarāja speaks of a village on the Tāpī as included in the Konkan, it seems that Konkan extended to the Tāpī towards the North. Navsari, the capital of Lāṭa, once a province of Konkan, must have been included in it. The Konkan Śilāhāra records speak of a city called Hañjamana, which is to be identified with modern Sanjan. As regards the southern limits of Konkan, great difference of opinion prevails. Some Indian writers make Gokarṇa, 25 miles south of Karwar, the boundary between Kerala and Konkan. The Sahyādrikhaṇḍa says that Konkan extends from Cape Comorin to Nasik. Mādhavācārya's grant of 1391 A. D. speaks of Goa as the capital of Konkan. Jayakeśin one of the Kadambas of Goa, is said to be the king of Konkan. From all these facts it follows that Konkan included towards the south Goa and parts of Karwar and that at times it was supposed to have included Banavasi and the territories of the Konkan kings beyond the Ghauts.

From ancient times Konkan has been subdivided into seven parts. What the names of these seven divisions were it is difficult to say. There were two well-known divisions: north Konkan which was a 1400 province and south Konkan which was a 900 province. Dr. Fleet arranged the divisions as Payve or Haive 500, then Konkan 900, then Iridige; then Konkan 1400 and then Lāṭa. Besides there were many smaller subdivisions of Konkan such as Palasīdeśa (Belgaum) and Kālagiri Kampaṇa, Revatīdwīpa, Aṭṭavire Kampaṇa (Adivare in Ratnagiri), Kāpardikadwīpa (from Rajapur to Sopara), Kāpura (Sopara to Sanjan), Kandalamūlīya (Chaul to Sopara), Ṣaṭṣaṣṭi (modern Salsette), Navasārikā, Sopāraka and Kheṭa (Khed in Ratnagiri).

The origin of the name Konkan is doubtful. In the grants and ancient works various forms of the name occur such as Koṅkaṇa, Koṅkanaṇa. The Mahomedan writers present even a greater variety. In many grants and inscriptions found in the Konkan, the names of donees and great officers of State are distinctly southern. It cannot be argued that this indicates that the country was inhabited by Kanarese people, or that the Kanarese language was spoken in Konkan. The proper explanation is that as the overlords of Konkan from 600 A.D. were the Cālukyas and the Rāṣṭrakūtas whose central government was in the heart of the Kanarese country and as the Śilāhāra rulers of the Konkan also came from Tagara, modern Ter in the Nizam's dominions, the ministers and donees were naturally Brahmins from Karnatak. Some derive the word Konkan from a Kanarese word meaning "uneven ground". But ths derivation cannot be accepted. The earliest dynasty from the Kanarese country to conquer Konkan was that of the Cālukyas who did so only after 550 A. D.; while the term was well established long before it. North Konkan was Koṅkaṇa governed successively by the Aśokan Mauryas, the Āndhrabhṛtyas, the Kṣatrapas, Ābhīras and later Mauryas from 300 B.C. to 600 A.D. If the word Koṅkaṇa is non-sanskritic in origin, it may be conjectured that it was evolved during the times of the Kṣatrapas and is connected with the Persian word "Koh" meaning mountain. Some connect the word Koṅkaṇa with the Nāga Kuṅkuṇa occurring in the Udyogaparvan of the *Mahābhārata.* This is far-fetched. It is more likely that the name of the Nāga is due to the name Koṅkaṇa or Kuṅkuṇa given to the country. Scholars take Kukuraparānta occurring in Rudradāman's inscription as two countries, but the fact, that no sandhi is made elsewhere in the same passage except in Ākarāvatī, shows that Kukuraparānta is one country. - One feels tempted to identify Kukura with Kuṅkuṇa. But there are objections against this. Ancient works like the *Mahābhārata* seem to have kept the words Kukura and Koṅkaṇa distinct. Besides the Kukuras are connected with the Yādava tribes of Dwārā in the *Mahābhārata.* The question of the origin of the term Konkan is therefore still an open one.

कालिदासस्य काव्यानि. *By* KRISHNAMACHARYA.

1 श्रीमानयं कालिदासो महामहिमसु सुखैकमयशब्दप्रपञ्चनिर्माणचतुरेषु महाकविषु प्रथमगणनयिः, यैः पुनरद्यापि पूतं च भूषितं च भाति भारतं वर्षम्, ये च सुभाषितामृतासारेण न केवलमात्मानं परं स्वपरिगृहीतं भागधेयजन्मानं पुरुषमप्यजरामरधर्माणमाकलयन्ति ।

2 अस्य च महाकवेः सूक्तिरसाधारणीमुत्कर्षपदवीं शब्दतोऽर्थतश्च परिपुष्णाति ।

3 ईदृशस्य च समुत्कर्षसौभाग्यस्य परमं निदानं कविमणिनानेन मुहुर्मुहुर्भाव्यमानो भगवतो वाल्मीकेः सुभाषितनिष्यन्दो रामायणं नाम ।

4 अनेन च कविचूडामणिना ग्रथितानि श्रव्याणि त्रीणि दृश्यानि च त्रीणि काव्यानि, न पुनर्नलोदयो वा ऋतुसंहारो वा। मालविकाग्निमित्रमपि महामतेरस्यैव वाचां विलासः ।

5 अयं च कविसार्वभौमः स्वकीयेषु सर्वेष्वपि काव्येषु प्रकाशमथ वा निगूढं कथातोऽपि श्रीरामायणोपजीवितामासूत्रयाति ।

6 तत्र श्रव्यदृश्ययोर्मेघसंदेशमालविकाग्निमित्रयोः, कुमारसंभवविक्रमोर्वशीययोः, रघुवंशशाकुन्तलयोश्च परस्परमतिगाढो मित्रभावः परिदृश्यते ।

State-interference in Ancient Indian Industries. *By* NARENDRA NATH LAW.

The *Arthaśāstra*, the *Mahābhārata*, and other ancient texts, furnish us with very interesting and instructive evidences in regard to the economic functions of government. Not merely were coins minted and weights and measures supplied exclusively by the government, but the manufacture of salt, and the extraction of minerals were the monopolies of the state. Thre were also state-departments of agriculture and industries, state-forests, and state-manufacture of luxuries, principally for the imperial household, and the imperial civil and military departments. Indirectly, the state had minute regulations to control the standard of production in some handicrafts, the prices of commodities as well as the place and time of markets, while encouragement was given to those who imported foreign merchandise. Indian importers of foreign goods were favoured with the remission of trade-taxes, and foreign

merchants were exempted from being sued for debts. Through sumptuary laws as well as laws of contracts and the protection of guilds within proper limits, the state prevented economic abuses and tried to keep itself in close touch with the social well-being of the people.

Old Shastric Learning. *By* M. A. NARAYAN SHASTRI.

1 Scope and meaning of Old Shastric Learning, and
2 Suggestions for its Revival.

Under 1 are included Vedas, their six Aṅgas, Sanskrit language and literature, Fine Arts and the various Śastras, Astronomy, Medicine, Economics and Mīmāṁsā being specially dealt with. Three different periods have been noticed in tracing the gradual decadence of Shastric Learning with some approach to history.

Under 2 organisation of special schools for imparting Shastric instruction to Indian youths, vocational education being·correlated whith the same. The development of the Bhandarkar Oriental Research Institute, the creation of similar institutions in all parts of the country as auxiliaries to the parent institution, the collection, copying and publication of rare manuscripts from all possible sources, establishment of permanent fellowships to encourage research, the formulation and execution of a scheme of translation whereby modern scientific and other useful literature can be made accessible to the existing generation of Pandits whose services deserve to be utilised in discovering the full scope and comprehension of the Shastric Learning.

Academical Study of Sanskrit. *By* P. V. NARSINGRAO.

1 *The value of a study of Ancient Literature with special reference to Sanskrit :—*

(*a*) A study of the past has a peculiar interest; it interprets the present and gives a clue to the future; it enables us to comprehend ourselves better.

(*b*) Ancient Indian literature is a work of extraordinary merit.

(*c*) Study of grammatical science in Sanskrit affords a valuable mental training and is a basis for abstract thinking.

(*d*) Sanskrit study is very useful on philological grounds.

(*e*) Every Hindu ought to know Sanskrit in order to understand the meaning of his own daily prayers and mantras.

(*f*) Sanskrit study has a moral and disciplinary value.

(*g*) It binds together the various classes of people deriving their better aspirations from sacred works in Sanskrit.

2 *Sanskrit study in Ancient India* :—

(*a*) Every *dvija* studied Sanskrit under a highly qualified preceptor.

(*b*) Many of these preceptors maintained residential teaching universities and spread a very comprehensive education.

3 *Western education lowered the importance of Sanskrit:*—

(*a*) The graduates of ancient institutions were not so well off economically as the graduates of modern schools.

(*b*) The main object of modern schools was held to be the development of western learning.

4 *Sanskrit study in Modern Schools and Colleges:*—

(*a*) The provision made for the study of Oriental languages is inadequate.

(*b*) The attainments in these subjects of an average graduate is low.

(*c*) Indian languages are seriously neglected.

(*d*) Those that wish to specialise in Sanskrit have to study three languages and this is a heavy strain.

(*e*) Absence of regular syllabuses, lack of appropriate books and want of efficient teachers have made Oriental education in schools and colleges ineffective.

(*f*) The neglect of vernaculars has meant a serious neglect of the pupil's most natural medium of thought.

5 *Sanskrit study in Pāṭhaśālās* :—

(*a*) The outlook of the Pandits is narrow. Subjects calculated to widen their outlook should be introduced and elements of secondary education must also be given.

(*b*) Oriental studies must be based on historical and critical methods.

(*c*) There is no co-ordination of aim between the traditional Oriental languages and the university studies; and therefore the attempts of the University to bring the Sanskrit College under their control have not produced satisfactory results.

6 *Defects of the present system of education*:—

(*a*) This system fails to realise the two main objects of a liberal education—mental training and acquisition of knowledge.

(*b*) A foreign medium of instruction involves waste of mental energy, presents two difficulties (of language and matter) simultaneously, destroys independence of thought, leads to the evil of cramming and allows no time and energy for a proper study of our languages.

7 *Remedies for overcoming the defects*:—

(*a*) Vernacular should be made the medium of instruction.

(*b*) English should be made a compulsory second language, with provision for specialising in that language in the case of those that have an aptitude for higher English education.

8 *Re-organisation of Sanskrit Colleges*:—

A Need for reorganisation.

(*a*) The work done in these institutions is at present inadequate.

(*b*) The attempt of the University to apply Western methods to Oriental study has not produced good

results. And there is incongruity of aim between the traditional study of Oriental classics and university study.

(*c*) Neither the University nor the Oriental studies have profited in any way by the action of the University.

B Proposed reorganisation.

(*a*) Oriental studies on traditional methods must remain undisturbed and the university students may have free access to the learning of the Pandits.

(*b*) A systematic study of the Indian languages on modern lines must be encouraged.

(*c*) The Sanskrit College must be divided into three sections:

(i) A High School department managed by the board of secondary education.

(ii) A college department controlled by the University.

(iii) A purely Oriental department independent of the University and managed by a special committee.

(*d*) The students of the Oriental department after passing the Title Examination may study Sanskrit in western aspects, without going through the High School course and they may be given a diploma or a degree.

(*e*) The various universities should open chairs in the Vernaculars of the respective States and encourage the study of vernacular literature and philology.

Some Views on the Problem of Sea-Voyage. *By* C. VENKATARAMANAIYAR.

Among several social questions of the day, the question of Sea Voyage rushes in at the very threshold, as the necessity and the circumstances of the present time demand the first and foremost consideration of this subject. The restrictions found in some of the Smṛtis and other works regarding Sea-Voyages to be undertaken by Hindus, especi-

ally by the high caste people, were primarily intended to safeguard the purity of Hindu society and religion in former days, when the facilities for sea-travel and for living in foreign countries uncontaminated, were not existent. The political situation and the material condition of old India favoured such restrictions or prohibitions with advantage. But the time has changed. New ideas on modern scientific basis and modes of life according to the programme of modern civilization compel us to acquire and assimilate them to a certain extent, as we come in contact with other nations day by day. This is necessary for the political advancement as well as for the material progress of India. Hence arises a necessity and aspiration for Sea-Voyage being freely undertaken. As in the present age, when without breaking the social laws and without losing the religious spirit of India, it is possible to live in the foreign country for a certain period with a view to acquire some scientific or industrial or commercial knowledge, or to achieve any other object for the well-being of Mother-India, such restrictions do not hold.

Besides, if Śāstras are properly interpreted, it will be clear that there is no prohibition at all to a sea-travelled man being admitted into social intercourse. As, restrictions laid down regarding 'Sannyāsa Swīkāra' &c. along with 'Sea-Voyage' do not find place in practice, the prohibitive nature of the Smṛti diction should not stand in the way of Sea-Voyage.

On the analogy of a man who undergoes imprisonment for any length of time and who is still admitted into society with proper expiation, although the limit of time for such a case is laid down only for one month, the sea-travelled man may also undergo expiation and be admitted into social intercourse, whatever be the time of Sea-Voyage, without minding the time limit of three days found in Śāstras in the same connection.

There is a permissible clause in *Parāśara Smṛti* to amend or change social laws and customs from time to time by competent persons of the age.

These are a few favourable views that can be gathered and expressed on the subject.

Funeral Place of Poet Kālidāsa, a Querry. *By* SATIS CHANDRA VIDYABHUSANA.*

In 1909, while Mahāmahopādhyāya Dr. Satis Chandra Vidyābhusana was staying in Ceylon, he found in the southern province of Mātara a spot, at the confluence of the river Kirindi and the Indian ocean, which was reported to be the funeral place of the great Indian poet Kālidāsa. It was covered over with clusters of creepers and flowers and surrounded by numerous cocoanut and arecanut trees. The monks, residing in a monastery called Tiśyārāma, in the neighbourhood, corroborated the report; and the monks of other monasteries in other parts of Ceylon related the same story. *Parākramabāhucaritra*, a Ceylonese work 500 years old, as also other works, bear testimony to the authenticity of the tradition.

It is said that Kumāradāsa, otherwise known as Kumāradhātusena, a very learned king of Ceylon, as a token of his gratitude to Kālidāsa for the latter's high opinion of the former's epic *Jānakīharaṇa Kāvya*, invited Kālidāsa to Ceylon, where great patronage and friendship were accorded to him by the Ceylonese king. It is reported further that Kālidāsa met his death in Ceylon under tragic circumstances; and that so indissoluble was the bond of friendship between the two that Kumāradāsa threw himself into the funeral pyre of Kālidāsa. The death of Kumāradāsa took place, according to the Pali chronicle *Mahāvaṁsa*, in the year 524 A. D.

It is said that once Kumāradāsa, to show his familiarity with the mother-tongue of Kālidāsa, composed a verse in that tongue and asked Kālidāsa to solve the puzzle involved in it. Kumāradāsa's verse was as follows :—

Original Verse.

सिय तँवरा सिय तँवरा सिय सेवेनी ।
सियस पूरा निदि नो लवा उन् सेवेनी ॥

Sanskrit Paraphrase.

शतदल तामरसं स्वादु तामरसं, (तस्य) स्वादं सेवमानः ।
स्वीयम् अक्षि पूरयित्वा निद्रां न लभमान उद्वेगं सेवते ॥

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* This and the following summaries were received too late to be included in the proper sections.

Its purport is :—'(Just before sunset) a bee, covetous of honey, entered into a lotus and was shut up within its hundred petals. Unable to get a sound sleep, filling his eyes, he sat up, brooding over his plight.'

The following is Kālidāsa's reply :—

Original Verse.

वन बँवरा मल नोतला रोणट वर्नी ।
मल देदरा पण गलवा गिय सुवेनी ॥

Sanskrit Paraphrase.

वनभ्रमरः मालां (पुष्पं) न उत्तोल्य रेणोरर्थे (यद्वा रुणु इति शब्दं कुर्वन्) प्राविशत् ।
मालायां (पुष्पे) विदीर्णायां प्राणान् गलयित्वा गतवान् सुखेन ॥

The purport :—'(Just before sunset) a wild bee wishing to drink honey without destroying flower, entered into the latter. (In the morning) when the flower opened, he, effecting his deliverance from inside the flower, flew away at ease.'

The question now is : 'In what dialect were the stanzas composed?' The Ceylonese say that the stanzas are written in the old Singhalese ; the Bengalees think them to have been written in archaic Bengali, while the Maithils hold that the language is old Maithili ; and the Gujaratis, on the other hand, maintain that the language employed must be Gujarātī, on account of the preponderence of nasal sounds in it.

Dr. Vidyabhusana now places this question before the Conference in the hope that the delegates will kindly identify the dialect of the stanzas and discuss the reliability of the date of Kālidāsa's death.

The Indo-Aryan Style of Architecture. *By* Y. R. GUPTE.

Definition of Architecture. (Architecture and Archaeology) Ideas conveyed by Architecture. It has two sides. To understand this two-fold function, and its varieties and sub-varieties illustrations are required. Subject-matter of this paper. The results obtained by pioneers. The modifications that are required. Leading characteristics of the Indo-Aryan style. The various forms it assumed, excellence and drawbacks of edifices.

Earliest models of Architecture are found in Babylonia and Egypt. Their relation to India is not known.

Some points for general guidance. Architectural developments depend upon the materials available in a country-wood, stone and clay. Generally wood precedes brick; stone was employed after bricks in India.

Divisions of Architecture:—Hindu Architecture-Its divisions, 1 Indo-Aryan, 2 Dravidian, and 3 Chalukyan. Main differences. The Indo-Aryan style only is dealt with in this paper. In India the style is peculiar. The details were borrowed from time to time from Greece and Persia. But the style is decidedly indigenous. So it is called Indo-Aryan. The provinces in which the typical examples are noticed are known as Āryāvarta. The fashion prevails from the Himalayas to the Vindhyas, in Maharashtra and in a part of H. E. H. the Nizam's Dominions.

The origin of it is a mystery. The prototype of the Śikhara has defied the attempts of scholars. Mr. Fergusson's hypothesis of Persian influence.

Innovations in India are not suddenly made. This rule applies particularly to religious things.

Propriety in calling a *śikhara* a *vimāna*. Its derivation. Gods are represented as fond of travelling in *vimānas*. Square forms are disadvantageous. The circular shape is better suited. The Puṣpaka vimāna. In the 2nd centnry A. D., the date of the *Rāmāyaṇa* the Śikharas were white. Flatness of roof is a characteristic of the Gupta period. Temples of the late Gupta period have spires.

The plan of an Indo-Aryan temple is a square inside and outside. But addition of slices are made.

It is believed that Orissa possesses temples of the pure type which is astylar. Their general characteristics. Notable examples are those at Bhuvaneśvara and Puri. The Orissa group forms in itself one of the most complete and interesting in all India, for this reason the monuments in Orissa are dealt with first.

Parasurāmésvra temple at Bhuvanesvara. It is not magnificent. But the sculptures are exquisite. The ornaments are well-designed. The temple of Muktesvara, though small is more beautiful. The plan is similar to that of the Parasurāmésvara temple. But the beauty lies in the details. The Liṅgarāja temple at Bhuvanesvara. It belongs to the 9th century A. D. Its description-Absence of monotony is a characteristic of this monument. There are two fashions in Orissa, one represented by the temple of Parasurāmesvara and the other by that of Liṅgarāja.

Adoption by the Hindus of the Buddhist system of using repetitions of temples as ornament. The extent to which this system is carried is a fair test of the age of Hindu temples.

The early Orissan system was astylar. But it was not a peculiarity of the Indo-Aryan style. Later Orissa examples have pillars. The Black Pagoda at Kanārak. Its date—Its description. The temple of Jagannātha at Puri. Its description. The Mukhaliṅgam temple in the Ganjam District.

The style in Orissa degenerated from the 12th century onwards.

The Kashmir temples form a peculiar group. It is not apparently included in the Indo-Aryan style by Mr. Fergusson and others. The typical example is the temple of Mārtaṇḍa. Its deseription.

Northern and Central India :—Here the temples are smaller as compared to the Orissan and Southern ones. But they have very neat and elegant forms. Models of the style :- 1 The brick temple at Bhitargaon. 2 The sand-stone temple at Deogarh, Jhansi District. Their descriptions and dates. The Gupta architectural characteristics. 3 The Śaiva temple of Śītalersvara at Candravati in Rajaputana. Its description and date. 4 Two temples of the 11th century in the Gwalior fort. Their descriptions. 5 Temples at Vrindavan near Mathura. Their descriptions. 6 The temple of Viśveśvara at Benares. Its date and description. 7 Miṛabai's temple at Chitor.

Chandel buildings :—Specimens are to be met with in Bundelkhand. 8 The temple at Phutera on the Jhansi-Nowgong road. Its date. The Śaiva temple at Gaharao (Tahsil Mau, District Jhansi). Its description and date. 9 The temple at Khajuraho.

Gujrat Architecture :—10 The temples in Gujarat are believed to be in the Jain style. But that is the style of a province. 13 The characteristics of the style.

Bengal :—The Bengalis did not adopt any of the above styles in tact. The prevailing one differs from them. Observations on the same. 11 The temple at Kantanagara near Dinajpur. Its date and description.

The Deccan :—The Hemāḍpanti temples. 12 A typical example of another form of the Indo-Aryan style of the 11th and 12th centuries is the temple of Gondēśvara at Sinnar in the Nasik District. Its description. 13 The temple at Ambarnath near Kalyan in the Thana District. Its description. Some observations on the style called after Hemāḍpant. The places where specimens are to be found. The Kālā Rāma's temple at Nasik exhibits the latest phase of the style. Its description. 15 Naro Shankar's temple at Nasik.

Dharawad and Maharashtra in general:—The Dravidian style has influenced the Indo-Aryan in Maharashtra. The edifices afford scope for comparing the advantages and the disadvantages. 16. A typical monument is the Pāpnāth temple at Paṭṭadakal. Its description.

Edifices of the Sikhs :—They are few. 17 Haramandir at Amritsar. Its history and description. 18 Shrine at Nander. 19 The Gurudvāra at Shahajahanabad (Delhi). Its history and description.

Rock-cut temples :—General observations. 20 The caves at Bādāmi with their dates. 21 The caves at Elura. 22 The Daśāvatāra temple at Elura. 23 The Elephanta Caves. Their date. Some general observations. 24 The Pāñcāleśvara temple near Poona. Some observations on it.

Two monuments that have come to light since the publication of Mr. Fergusson's, *History of Indian and Eastern*

Architecture. 25 The Masrur monuments. Their description. Their date. 26 The monolithic temple near Thal known as the Eka-Hatiā Temple. Its description.

Kīrtistambhas :—An early toraṇa-gateway at Pathari in the Gwalior state. Vaḍnagara gateways are remarkable for carving.

Palaces :—General observations. Palaces mentioned in ancient works like the *Rāmāyaṇa.* The palace at Taxila excavated by Sir John Marshall. The Mauryan palace at Patna. The palaces in the Gwalior fort. Their descriptions and dates. The palace at Udeipur. Its date and description. The palace at Ambar built by Sawai Jai Singh. The palace of Surajmal at Dig. Its description and observations on its construction.

Town-planning :—It is not dealt with in this paper as another gentleman has promised to enlarge upon the subject.

Houses, Chatrīs or Cenotaphs :—The Hindus are not accustomed to show much respect for the dead. When the Rajputs and the Marathas came in close contact with the Muhammadans, they began to raise monuments to mark the sites where the deceased had been burnt. The Chatris do not vie with the splendid tombs of the Pathans and the Moghals. Mahāsatis. Rana Sangram Singh's Chatris. Foliated arch was the fashionable form at Delhi and Govardhan. In the 18th century, even the Brahmin Subhedars adopted the suggestion offered by the Muhammadans.

City walls :—Walls at Pāṭaliputra were of wood. Later on mud and stone were freely used. Markaṭ Keśari's stone revetment.

Bridges at Puri and Jājpur.

Tanks:—Their characteristics. Tanks at Chandpur and Dabhai. Rana Sang. Singh's dam. The embankment of Raja Udet Singh constructed to form the lake Barva Sagar.

Wells and Baolis.

Ghāṭs at Benares, Maheśvara, Ujjain and Haradvar. Nahara-ghaṭi and Raja-ghaṭi at Deogarh, Jhaṇshi District.

Viśeṣādvaita. *By* VIRUPAKSHA WODEYAR.

The principal object of the teaching of the Vedas is to reveal the highest ideal of man's life and to lay down the appropriate means of attaining it, by removing all doubt and ignorance and by finally solving the mystery of life. Numerous doubts haunt our minds regarding this universe and its Maker. And many conflicting attempts have been made to remove all doubts and illumine our minds. And these constitute the rival schools in philosophy, the schools founded by Śaṅkara, Rāmānuja, Mādhava, Vallabha, Śrīkara and others. I am concerned with Śīrkarācārya's *Viśeṣādvaita* philosophy. It has not received the attention it deserves, of our scholars. But to my mind Śrīkarācārya's philosophy possesses the supreme value. It has said the last word in philosophy. It has constructed the most satisfactory system of philosophy, having refuted other systems. It has pointed out the errors lurking in other systems and conclusively established its thesis. It is to be noted that Śrīkarācārya has never failed to incorporate into his own system the truths in the doctrines of other Ācāryas. His is a very *comprehensive* and *liberal* view.

I cannot discuss in this summary Śrīkarācārya's refutations of rival theories. *I refer you to my Sanscrit paper.* Nor can I do justice in this summary to the details of Śrīkarācārya's philosophy. I shall only very briefly touch the most important points. My only purpose is to draw your attention to the philosophical doctrines of Śrīkarācārya which have been neglected, even though they merit a close study.

Brahman is He who apportions rewards and punishments to Jīvas according to their Karman. He is the light that illumines the gross and the subtle, the sentient and the nonsentient things. He is possessed of truth, knowledge and innumerable other good qualities.

Jīva is that which is fettered by Māyā, burnt up by miseries of three kinds and is a seat of pleasure and pain as a result of *kāma, krodha*, produced from its entering into numerous bodies.

Māyā or Śakti is a peculiar characteristic of Paramātman. It is inseparable from Paramātman. It is to Paramāt-

man what the quality of burning is to the fire, what the quality of attracting a piece of iron is to a magnet. It is therefore erroneous to say that Māyā is false.

Though Jīvātman and Paramātman are different, still Jīvātman can become one with Paramātman just as extremely heated iron becomes one with fire itself. This is called unity of Jīva and Śiva.

Śrīkara says that Brahman is spoken of as Liṅga in the Vedas, Smṛtis and other great works. Even the Gāyatrī Mantra advises Liṅgadhāraṇa. Many passages may be cited from Manu and Gautama in support of this Liṅgadhāraṇa. The *Brahma-Sūtras* explain how Liṅga is worshipped in three ways. Liṅga-worship is not the privilege of any particular caste or creed or sex. (Vide *Parameśvarāgama*). Śrīkarācārya has no faith in re-birth. Salvation is possible in this very birth if we but wear Liṅga, worship it and practise meditation &c.

Such ennobling ideas and liberal principles (—universal love and sympathy, equality of rights to both the sexes, removal of the barriers of the caste system—) were taught in very ancient times by Ācārayas like *Reṇuka*, *Śivadeva*, *Ekoram*, *Marula Siddha*, *Agastya* and others, who propagated Liṅgāyatism.

Origin of the Indian Alphabet. *By* D. R. BHANDARKAR.

The scripts at present indigenous to India have all been traced to only one alphabet viz., the Brāhmī Lipi which has therefore been regarded as the real ancient alphabet of India. When therefore we discuss the origin of Indian alphabet, we have in view the orign of this Brāhmī Lipi only The existing theories about the origin of this alphabet are twofold in character, according as they are traced to the indigenous, or to the foreign source. The first of these theories was held by Lassen, E. Thomas, Alexander Cunningham and Dowson. The theory of foreign origin again is held by two distinct classes of scholars, one referring the Indian Alphabet to the Greek, and the other to the Semitic source. The first

of these theories was held by Prinsep, Müller and Senart but as the Brāhmī alphabet is now proved to have originated much earlier than the Aśoka period, this theory is no longer countenanced by any scholar. Two theories, again, have been broached in regard to the Semitic origin of the Indian alphabet, one band of scholars like Deecke and Isaak Taylor holding that it was derived from the southern Semitic script and another band headed by Weber and Bühler, tracing it to the north Semitic. And it is this last theory, namely the north Semitic origin of the Brāhmī Lipi, that is in the ascendent. It is however very doubtful, whether this theory can now be upheld, in the light of the discovery of the prehistoric potteries, made by Mr. G. Yazdani in the Nizam's dominions. These potteries have single alphabetical marks inscribed on them, and similar ones have been noticeable on those found by Bruce Foot and now deposited in the Madras Museum. About 131 marks have been detected, five of which have been found to be identical with the letters of the earliest Brāhmī alphabet. It does not therefore seem unreasonable to suppose that the Brāhmī script was derived from an indigenous Indian alphabet of the pre-historic period. It may be mentioned here that the Cypriot and Phoenician alphabets have similarly been traced to prehistoric origin, because 20 letters of the scripts were found to closely resemble the alhabetic marks painted on pebbles of the Palaeolithic and Neolithic ages discovered by Piette in France. In connection with the pre-historic writing of India, it deserves to be further noted that there are at least two Neoliths in the Indian Museum, Calcutta, which are scratched with letters. One of these which was found in Assam, bears letters corresponding to the pre-historic character of Egypt. The other which comes from about Ranchi in Bihar, contains three letters bearing close correspondence to the Brāhmī characters of the Aśokan period, but reversed in form. The origin of the Indian alphabet is thus transferred from the historic to the pre-historic period. And when letters of the Brāhmī Lipi are found identical, or almost identical with those on the pre-historic antiquities of India, it is absurd to maintain any longer the theory of the semitic or foreign origin of the Indian Alphabet.

Bhartṛhari in Ibn Muqaffa. *By* G. K. NARIMAN.

The Zoroastrian litterateur Rozbeh, who embraced Islam as Ibn Muqaffa and died in about 757 A. C. is famous as the translator into Arabic of the *Pañcatantra* from its Pahlavi version. He is also the reputed author of *Adabul Saghir* and *Adabul Kabir* dealing with maxims and wisdom in literature. It seems his knowledge of Hindu wisdom was not confined to the *Pañcatatnra.* And as he himself could hardly have learnt Sanskrii, it is established that other Sanskrit works besides the original of *Kalila wa Dimna* were accessible to him in Pahlavi. For the passage from 'wa laysa min khillatin' at p. 73 to 'summeya aiyyan' p. 74 in *Adab Saghir* is a free translation of the well known Śloka in Bhartṛhari 'jāḍyaṁ hrīmati gaṇyate' in the Nītiśataka. The passage next following is also a version of the Śloka 'rogī cirapravāsī parānnabhojī,' the last line 'yaj jivitaṁ tan maraṇaṁ yan maraṇaṁ so' sya viśrāmaḥ' being literally represented by 'fal hayato lahu maotun wal maoto lahu rahatun.'

INDEX TO NAMES AND SUBJECTS IN THE *SUMMARIES* OF PAPERS.

Abhoṇa grant cv
Abul Fazl lxv; lxvii
Achaemenian Empire cxxiv
Adabul Kabir clxxxi
Adabul Saghir clxxxi
Aesthetics lv
Agastya clxxix; drinking of the Sea explained cliv
Aghāsu i
Ahicchatra cxxxvi
Ahura—Asura xxvi; Mazda xxvi; Mazdah x
Ahurian religion xxvi
Aihole inscription cv; cxvi; clxiii
Aikin J. cxxviii
Aini Akbari lxv
Aitareyāraṇyaka xv
Aitareya Brāhmaṇa lxxviii; lxxx
Akalaṅka cxxv
Akṣṇyā cliii
Akam Mano xxvii
Akbar lxv
Alberuni cxxxiv
Alexandar-Candragupta cxi
Allahabad, pillar inscription of Samudragupta cxxiv
Allegories, three types of li
Al Mamoun lxvi
Alphabet, Indian, Greek origin of, Semitic origin of clxxx
Al Rashid lxvi
Altars, construction of cliii
Amarakaṇṭaka cxxvii
Amaretat and Haurvatat xxvii
Amānta-month in the Brāhmaṇas vi
Amāvāsyā iv; the Māgha vi; not new moon iv
Amir Khushro lxvi
Ammonites and Israelites xii
Anekavidhapuruṣa Cayana cliii
Angra Mainyu x; xxiii
Anhilwada Patan cvii
Antiochus Teos cxii
Anumāna, three types of lxxxix
Anuyogadvāra lxxxviii
Apabhraṁśa xliv
Aparāntaka xxxv; Kuhuraparānta clxiii; in *Raghuvaṁśa* clxiii
Arabic literature, Golden age lxvi
Arabs cxxvii
Architecture, Hindu—its divisions clxxiv; Indo-Aryan style of clxxli; Orissa style of clxxiv
Armaiti, spenta xxvii
Arrian cxxi
Arthaśāstra xxiii; lix; clxiii; of Kauṭilya cxxxi
Arts and Crafts xxiv
Aruṇodadhi = Erythraean Sea cxviii
Aryana Vaejo xxi; xxv
Aryanising of India xviii
Aryans (Vedic), home not India xii; fusion with Dasyus xvii
Assar Mazaash x
Assyrian Gods x
Astrology, the Persians borrowed from Chaldea xxiv
Asura ix
Aśa Vahiśtar xxvii
Aśoka lxxiii; cxii; edict of Sopara cl; inscriptions of xviii; Maurya cxiii; cxxi
Aśokāditya Gupta cxiii
Aśvaghoṣa xxxiv
Aśvinī as first asterism i
At'harban = the Atharva Veda lxvi
Atharva i
Avesta, character of xi
Avidyā of Bauddhas xcviii
Ayarsley, Mrs. M. cxlvii

Ādi-Pampa cxvii
Āgamas lxxxix
Āhnikas, the age of xc
Āḷwār Kulaśekhara lxxxv
Ānartīya vi; vii
Āndhra xxxiv; antiquity of race lxxx
Ārādhanā xlvi
Āruṇi xcii
Āryadeva xxxiv
Āryāvarta xvii
Āśvalāyana Gṛhya Sūtra xiv
Ātharvaṇikas v
Ātman of the Upaniṣads lv; as Ānanda lvi
Āvaśyakasūtrāvṛtti cxxv
Babylon ii ; Solar Zodiac in ii
Back-Bay coast finds cl
Bactria, Hun Settlement in lviii
Badaoni lxv; lxvii
Balavarman, the ancestor of Bhāskaravarman of Assam cxxiv
Ballini cxxv
Bardic Survey xxxix
Barsam cxxxii
Bādarāyaṇasūtras xcv
Bāhiranidānavaṇṇanā xxx
Bāhlīka lix
Bāśkala xci
Bāveru Jātaka, cxviii; clxii
Beames xli, xliv
Beauty, Indian conception of lv
Bergsonian flux xxix
Bhagavadgītā xcv; antiquity of c
Bhandarkar R. G. xi; xxxiv; xliv; lxxxv; cviii; cxvi
Bharata clix
Bharata-Khaṇḍa civ
Bhartṛhari cxxv; clxxxi
Bharukaccha (Broach) clxii
Bhaṭṭa-Nāyaka lvi
Bhau Daji cvi
Bhavabhūti lxxx; cxxv
Bhavisayattakahā xlv
Bhāradvāja lix
Bhārata, became *the Mahābhārata* at the time of Śaunaka xiv
Bhāsa lii
Bhāskarācārya ii; cxvii
Bhitari record and seal cxxxvii
Bijolian Rock Inscription cxxxvi
Bombay, The Alexandria of India cxlix
Bopp xlix
Bose, J. C. xxii
Boudyas (Buddha) cxxiii
Brahman xxviii
Brahmasūtras xcviii; clxix
Brāmaṇas, composed about 2000 B. C. iv
Brāhmī characters cvii; origin of clxxix
Bṛhadāraṇyakopaniṣad xci
Bstain-hgyur xxxiv
Buddha xcvii; Avidyā of cviii; Nirvāṇa of cxxxviii
Buddhaghoṣa xxx
Buddharāja, immigrant cvi; son of Saṅkaragaṇa cv
Buddhism, Philosophy of change xxiv; Vātsyāyana's objections on xcviii
Bandahish xxiv
Burmese, dialects of the xlvii
Bühler iv; clxxx
Būrk cliii
Caesar cxxxi
Caitanya lxxx
Cakradhara, (alias Cāṅgadeva), date of cxix
Caldwell lxxv; lxxi
Cālukyas (later), their administration cxv; their architecture cxv
Candragupta-Alexander cxi
Candragupta xxxv; viii
Canopus cliv
Cardinal points, how determined iii
Carlyle liii
Carpathians, the Home of the Indo-Germans xlviii
Carpenter ciii
Castes, their dissolution and formation in Mahārāṣṭra cxl; cxli

Caste-system, among Dravidians cli
Cauhān Kingdom cxxxvi
Cayana cliii
Cāṇakya cxii
Cārudatta li
Chaldeans, neighbours of Greeks and the Aryans x; xi
Chahar Gulzar Shujai lxvii
Chinese literature xviii
Chosroes I lxvi; cxxxii
Cornelius Tacitus cxixx
Cunningham, A clxxix
Daḍḍa Sāmanta cxxvi
Dakṣiṇāyana vii
Dalton cxlvii
Darius, Inscriptions of xviii; II of Persia cxxiv
Dasyus, fusion with Aryans xvii; the Indian non-Aryans xvi; senses of xvii
Deecke clxxx
Deva-loka, location of ii
Deva-nakṣatras ii
Dhanavāla lxv
Dharmakīrti cxxv
Dharmāśoka of Kasmir cxiii
Diocletian clv
Diodorus clv
Divya mode of reckoning cxxii
Dnyāneśvara cxix
Doges cxlv
Dokhma xxiv
Dowson clxxix
Dramma cli
Dravidians, caste-system amongst cli
Durga ix
Education, in the Upaniṣads ix
Edwards cli
Egypt xviii
Ekanātha cxx
Ekaviṁśāgni cliii
Ekoram clxxix
Elam cxviii
Elliot lxvii
Endoxus of Cyzicus cxix
Energetes cxix
Epagomene = Gavāmayana clv
Equinox, vernal i
Equinoxes, no reference in the Brāhmaṇas iii
Erythrean Sea (Aruṇodadhi) cxviii
Erzāhlungen in Māhārāṣṭrī xl
Ethics, Hindu xcv
Exogamy, among the Ayran Hindus cli
Fa-hien cxxxviii
Faizi lxvii
Faridun xxiii
Fergusson ciii
Ferishta lxvi
Feroz Taghlak xvi
Firdausi cxxxii
Fire-worship xxiii
Fleet cv; cvi; clxiv
Fletcher, B. ciii
Foot, Bruce clxxx
Forbes, A. K. cviii
Gajask-i-Abālish lxv
Gaomez, Chemistry of xxiv
Gavāmayana = Epagomene (in sound) clv
Gārgī xcii
Gāthas xviii; cxxxix; great resemblance with *Ṛgveda* xxi
Geber clv
Gibbon cxxviii
Gokarṇa, the boundary between Kerala and Konkan clxiv
Gotama lxxxix
Gotras, originally four xv
Gould, B. cxxviii; cxxxii
Grahalāghava clxi
Greeks, neighbours of Chaldeans, Aryans xxi
Gṛyha Sūtras of Pāraskara xciii
Gujarāti Poets (old) clxii
Gupta Empire xxxv; Era, sources of information cxxxvii; Kings-Solar Kings of Kālidāsa lii
Gurjara-Pratihāra ruling family cxxvii

Gurjaratra cxxvii
Gutschmid cxxx; cxxxi
Gyānacandra cxxxvi
Hamurabi cxxxix
Haribans = *Harivaṁśa* lxvi
Haribhadrasūri, the date of cxxiv
Hariandra cxxvii
Harisena cxiii
Harivaṁśa xciv
Harp, in vogue in Aryan times clviii
Harrington ciii
Haurvatat and Amaretat xxvii
Hemacandra xliv; his Grammar cviii
Herodotus cxxxi; cxxx; clv
Hindu Ethics xcv
Hiuen Tsang cixiii; refers to Konkan cxiii
Hīnayānists xxix
Hoernle xlix
Homœography xiv
Howett, M. E. cxlix
India, imports, cxxxv; not home of Vedic Aryans xii; Sea-communication with cxviii
Indo-Germans, home of clviii
Iran, Chemitry in xxiii; Hygiene in xxiv; medicine and surgery in xxiii
Jackson xxvii
Jacobi xl; xlix; lxxii; cxxv
Jagannātha Paṇḍita lxxx
Jaimini xcii
Jambu Dvīpa civ
Janaka xxx; xcii
Jayakeśin (of Goa) clxiv
Jāṅgaladeśa, a province of Bhārata Varṣa cxxxv
Jātakas cxxxi
Jinasena cxxxvii
Jīva clxxviii
Jīvanmukti-ideal lv
Jñāneśvarī clxi
Jog Basust = *Yoga Vāśiṣṭha* lxvii
Jones, William cxi
Julius cxxxix
Jvālāmukhi lxvi
Kalacūris cv; alphabet cvi
Kallila va Dimna clxxxi
Kamalaśūla cxxv
Kaniṣka xxviv
Karnatak, dynasties of, cxvi
Kathāsaritsāgara cxiii
Kauśītākī Brāhmaṇa iv; vi; vii
Kauṭilya c
Kālamādhava v
Kālidāsa xxxvi; li; clvi; Aparānta in the *Raghuvaṁśa* of clxiii; contemporary of Skandagupta lii; the court-poet of Agnimitra lix; funeral place in Ceylon clxxii; his knowledge of music lviii; and Kauṭilya lviii; Upamās of lii
Kātyāyana xciv
Kātyāyanī xcii
Keith, A. B. ii
Khaṇḍakas xxx
Khorsched (Sun) worship of xxiii
Kielhorn cvi
Kishan Joshi lxvi
Kittel lxxiv
Kīrtistambhas clxxvii
Klatt cxxv
Kolis, as first settlers of Bombay cl
Koniakoi (Gk.) Konkan clxiii
Kong-kin-na-pulo (Chinese for Konkan) clxiii
Konkan, old sub-divisions of clxiv; origin of the name clxv; referred to by Hiuen Tsang clxiii
Kṛṣṇarāja cvi
Kṛṣṇa-Yajurveda xcii
Kṛttikās, Fleet on ii; Whitney on ii
Kṛttikāsu i
Kṣama-Sramaṇa xxxv
Kuhn xlix
Kuhuraparānta clxiii
Kulaśekhara, Alwār lxxxv
Kuśanas, xxxiv
Kumāradāsa, his puzzle to Kālidāsa clxxii; King of Ceylon and auther of *Jānakīharaṇa* clxxii
Kumāra-jīva xxxv; xxxvi

Kumārapāla cvii
Kumārapālacarita xlv
Kumārapālapratibodha xlvi
Kumārasambhava of Nannecoḍa lxxix
Kumārila xcvii; cxxv
Kuru-Jāṅgala,-Pāñcāla cxxxvi
Kurukṣetra, date of the battle of cliv
Kuvalayamālā of Vidyotanasūri cxxv
Lakṣmaṇagaṇin xlvi
Laṅkā cxxvi
Laṅkāvatāra Sūtra xc
Lassen cvi; clxxix
Laukika or Saptarṣi or Sāstra Era cxxi
Lāṭa—Gr. Larika clxiii
Leumann cxxv
Liṅga-worship clxxix
Līlā-Carita cxix
Līlā-Saṁvāda cxix
Līlāvatī lxvi
Locke liii
Logic, Aristotelian, fallacies in lxxxvii; Indian, fallacies in lxxxvii; of Śaṅkarācārya and Aristotle c
Lunar-month iv
Macdonell xcv; lxxii
Magas of Cyrene cxxi
Magadha xxxv
Mahābhārata xiv; xix; lxv; lxxix; lxxx; xciv; cxxxix; on the authorship of the *Nighaṇtu* xvi; with Persian translation and paintings lxvi; lxviii
Mahābhāṣya, of Patañjali, xciii
Mahākaccāyana Thera xxxi
Mahāpadma cxx; coronation of cxxii
Mahārāja-Kanika-Lekha xxxiv
Mahārāṣṭra, castes in cxli
Mahāvaṁsa cxiii; clxxii
Mahāvedi cliv
Mahāvīra, Nirvāṇa of cxxxviii
Mahendravarman I cv
Mahesarasūri xlvi
Maine, H. cxxxi
Maitreyī xcii
Maitryupaniṣat iii
Mallavādīn cxxvi
Mallinātha Sūri lxxx
Mandasura Incription clxiii
Maṅgaleśa, his grant cv
Manu lxxxvii; cxxx; cxliii
Manakkāl Nambi lxxxv
Marcellinus Ammianis clv
Marriage, ceremonies of cxliv; cxlvi customs of cxlii; forms of cxlii the Hindu and the Parsi, features of cxlvii; presents in cxlv witnesses in cxlvi
Marshall, John clxxvii
Marula Siddha clxxix
Max Müller cxi; ciii
Maya clxxviii
Mazandru xxl
Mādhava v; lxxx; cxvii
Mādhyamika-Philosphy xxxvi; before Rāmānuja xc
Māgha Amāvāsyā vi
Mālava Era cxxxviii
Mālavikāgnimitra lix
Māṇikyanandī cxxv
Māṭhara-Vṛtti lxxxviii
Māyā of Saṅkara xcviii
Medea, conquest by Cyrus xxi
Megasthenes lxxx; cxii; cxxiii; cxxxi; clxiii
Metres clvi
Mihirakaula cxv
Miranbai clxii
Mironow cxxv
Mithilā, the burning of xxx
Mithra xxiii
Mleccha xii
Mokṣa ci
Moon, diurnal passage of the i
Mṛcchakaṭika li
Mudrārākṣasa cxiii
Muir lxxxviii
Muktābāi cxx
Muntakhab-ul-Tawarikh lxv

Music, early history of clvii; Pythagoras scale clviii
Müller clxxx
Nagor (Nāgapura) cxxxvii
Nairyosangha xxi
Nakib Khan lxvii
Nakṣatra ii; three aspects of cliv; of Devas ii, of Yama ii
Nal va Daman (*Nala-Damayantī*) lxvi
Namaḥ, meanings of xii
Nandas, Pre-mauryan cxii
Nannayabhaṭṭa lxxix
Nannecoḍa lxxix
Naonhaithya (Vedic Nāsatya) xxvi
Narasiṁha clxii
Narayana Sastri, T. B. cxiv
Nasks xxii
Navigation, in the Vedic times cxviii
Nayanandin xlvl
Nāgārjuna xxxiv
Nāgārjuna-Suhṛllekha xxxv
Nāmadeva cxx
Nāṭyasāśtra lviii
Nemicandra xxxv
Nerur-grant of Maṅgaleśa cv
Netti xxxii
Netti Prakarana xxxi
Nibbāṇa, true flux xxix
Nighaṇṭu, ix; distinctive features of xvi;editor of xvi
Nimi xxxi
Nine Aṅgas xxxi
Nirukta iv
Nṛpatuṅga cxvii
Nuh Sepehr (*Nine Spheres*) xlvi
Nyāyabhāṣya lxxxviii
Nyāyasūtra xxxvi; I. i. 5 lxxxviii
Nyāyatātparya Tīkā lxxxviii
Nyāyavārtika lxxxviii
Oldenberg xiv
Ophir=Sopara clxii
Ormazd x
Padfield cxlviii
Paiśācī literature lxxix
Palibothra (Pāṭaliputra) cxii
Pañcatantra, Persian translation of clxxx
Paramātmaprakāśa clvi
Parāśara Smṛti clxxi
Paripādal lxxxvi
Parṣads lxxxix
Patañjali xciii
Pathak, K. B. cv; cxxvi
Paumasiricariya xlvii
Pāñcarātra Āgama lxxxvi
Pāṭhaśālās clxix
Periplus of the Erythraean Sea cxix; cxxxiv; clxiii
Periyāḷvār lxxxvi
Persepolis xxii
Perumāḷ Tiromaḷi lxxxv
Petakopadesa xxxi
Peterson cviii; cxxv
Phallic-worship lxxxviii
Phaltan Māhātmya cxix
Phaṇicandra xxxv
Phālguna full-moon, the *mukha* of the year vi
Philology, the importance of xlviii
Piette, lithic ages discovered by clxxx
Pischel xlix
Piṭakas xxix
Pliny clv; clxiii
Plutarch clv
Poetic-schools, *prācīna*, and *navīna* school lv
Polarity, Law of xxiii
Polygamy cxlii
Ponna cxvii
Potter cxlviii
Poygai Āḷvār lxxxvi
Prabandhasāram lxxxvi
Prabhācandra cxxv
Prabhākara cxxv
Prabhākaravardhana cxxvii
Prajñāpāramitā xxxvii
Prākṛta-piṅgalasūtra xlv
Pramāṇa Vihetana xxxvi
Praśastapāda xxxvi
Pratīhāra cxxvii

Pravaras, common to Brahmins and Kṣatriyas xv
Prākṛtalakṣaṇam of Caṇḍa lxxiii
Prākṛtaprakāśa of Varauci lxxiii
Priyadarśin, edicts of cxii; pillar at Allahabad cxiii
Prinsep clxxx
Pṛthvīrāja Vijaya cxxxvi
Ptolemy clxiii
Pulakeśin cxvii ; II cxxvii
Pupphadanta xlvl
Puṣyamitra lx
Pūrvamīmāṁsābhāṣya lxxxviii
Pythagoras cliv
Racial Problems cxxxix
Raghuvaṁśa lix; lii
Raleigh, Walter liii
Ranna cxvii
Rapson cvi
Rasa, the *ātman* of poetry lvi
Ratnamandira Gaṇin xlvi
Ray, P. C. lxviii
Razm-namah, Persian translation of *Mahābhārata* lxi
Rāgas lviii
Rājarṣis xv
Rājataraṅgiṇī of Kalhaṇa xxxv; cxxi
Rāmānuja cxvii
Rāmāyaṇa lxv ; lxvi ; lxxx ; cxxvi; cxxxix
Rāsamālā cviii
Rāṣṭrakūṭa Kṛṣṇarāja grant clxiv
Rāvaṇa's Laṅkā cxxvi
Rehatsek cxxxi
Renaissance of Sanskrit learning xxxv
Reṇuka clxxix
Risley, Herbert lxxvii
Rudra, meanings of groups xiii; Rudras as disease-producing germs xiv
Rudradāman, inscription at Nasik clx
Rudrasena I of the Vakaṭaka dynasty cxxiv
Rock-cut Temples cv ; clxxvi
Roth ix
Rozbeh (alias Ibn Muqaffa), translator into Arabic of the *Pañcatantra* clxxxi
Ṛgveda iv; *Jyotiṣa* clxii; *lower* limit for the beginning of xvii; Nature worship in xxi
Ṛṣis, the progenitors of all Indo-Aryans xv
Sahyādrikhaṇḍa clxiv
Samanarāja cxxxvi
Samāmnāya xvi
Samprasāraṇa xliii
Samvatsara-Satra, as old as the *Ṛgveda* v
Samudragupta cxxiv; pillar inscription of cxxiv; cxiii
Saṅgha-Convocation, first xxxi
Saṅgraha Vāra xxxii
Sañjamamañjari xlvi
Sanskrit, a medium of instruction and debate in learned Societies ix
Sapādalakṣa (or Jāṅgaladeśa) cxxxvi
Saptarṣis xv
Sarasvati-grant cvi
Satra-month (known later as Sāvana month) v
Sāmanta Daḍḍa cxxvii
Sāṅkheda grant of Sāntilla cv
Sāṅkhya lvii
Sānkhyakārika lxxxviii
Sāṅkhyakārikābhāṣya lxxxviii
Sāṅkhāyana Gṛhya Sūtra, xiv
Sāvana-month v (see Satra-month)
Sāvana-year vi
Sāyana ii; v
Scheil, v x
Schroeder clxi
Scythians cxxiv
Sea-commucation with India cxviii; -drinking, of Agastya explained cliv; -voyage, restriction to clxx
Seleukos Nikator cxi
Senart clxxx
Shahnameh lxv; cxl

Siddharṣi cxxv
Siddhāntaśiromaṇi clxi
Sikhs, edifices of cixxvi
Siṅghāsana Battisi lxvii
Smith, Vincent A. cxii; cxvi
Snidas clv
Solar-calender i
Solar-kings = Gupta kings lii
Solar-Zodiac, Babylonian ii
Somaprabha xlvi
Sopara clxii; edict cl
Spatembas (Svāyambhuva) cxxiii
Spenta Mainyu xxiii
Sten Konow lxxvii
Strabo clxiii
Sumerians civ
Supāsanāhacariyam xlvi
Suppāraka (Sopara) clxii
Sureśvara cxxv
Susama xciv
Sūryasiddhānta clxi
Swynnerton cl
Śabaraswāmin xxxvi
Śaiṣunāga dynasty cxii
Śakuntalā liii; lx; xciv; the Devanāgari recension x
Śaṅkara, age of xci; cxiv; cxxx; cxvii; on Buddha xcvii; his Māyā xcviii
Śaṅkaragaṇa, his Abhoṇa-grant cv
Śatakas of Bhatṛhari clv
Śatapatha Brāhmaṇa iii; iv; vii; xi; xciv
Śaunaka, guru of Āśvalāyana xiv
Śākalya xcii; Śākaṭāyana xciii
Śāṅkhāyana Gṛhyasūtra xvi
Śāntarakṣita cxxv
Śāntilla, his Sāṅkheda Grant cv
Śāstravārtāsamuccaya cxxv
Śātavāhana xxxiv
Śilpa Śāstra ciii
Śiva (Śisna-phallus) lxxxviii
Śivadeva clxxix
Śrauta Sūtras of Kātyāyana xciii
Śrīkaṇṭhadeśa cxxxvi
Śrīkara clxxviii
Sulvasūtras cliii
Śūdraka li
Saḍguruśiṣya xiv
Saṣṭitantra xc
Tacitus cxxxi; cxxxii
Tagore R. liii
Taittirīya Brāhmaṇa i; ii; iv; v;
Takakasu-Belvalkar-Keith controversy xc
Tan-cao xxxv
Taprobane (Ceylon) clxiii
Taranath, Lama xxxv
Tarbari xxii
Taylor, Isaak clxxx
Tāta cxxvii
Tegg cxlviii
Telugu literature lxxx
Temples (Hindu), descending bathos in ciii
Tessitory, Bardic Survey xxxiv
Thibaut vi; vii; viii; lxxii; cliii
Thirteenth month, for adjustment v
Thomas, E. clxxix
Thraetana (Faridun), story of cxxx
Thrita xxiii
Tilak lxxii; xcv
Tirumangai Āḷvār lxxxvi
Tisaṭṭhimahāpurisaguṇālaṅkāra xlvi
Tod cviii
Toda ciii
Trade, Ancient Indian cxxxiv; cxxxv; -routes, to India cxxxiv
Tripiṭakas xcviii
Tuist, (Teut or Teutates) the Celto-Scythian King or hero cxxx
Udayana cxxiv
Udyotanasūri cxxv
Upadeśataraṅgiṇī xlvi
Upamitibhavaprapañcākathā cxxx
Upāyakauśalyahṛdayaśāstra xxxvi
Uttarāyaṇa vii
Va-Daeva (opp. to the Daevas) xxvi
Vadner-grant, of Buddharāja cvi
Vairasāmicariya xlvi

Vaiśampāyana xcii
Vaiṣṇavism before Rāmānuja lxxxi
Vakaṭaka dynasty cxxiv
Valabhi, Copper-Ccins cix; era cxxxiv; cxxxviii
Vallabhācārya lxxx
Vaṅkṣu lix
Varadatta xlvi
Varāhamihira xxxvi ; chiii
Vastupāla cvii
Vasubandhu cxiii
Vākpati cxxv
Vākyapadīya of Bhartṛhari cxxvi
Vātsyāyana xxxvi
Vedāṅga Jyotiṣa vi; viii ; cliv ; clxi
Vadānta lvi
Vedānta Deśika lxxxvi
Vedic Aryans, home of xii
Vendidad cxxxi ; xxiii
Venkayya cvi
Vernaculars old Aryan lxxii
Vibhāga Vāra xxxii
Vidyābhūṣaṇa clxxii
Vidyānanda cxxv
Vidyānātha lxxx
Vidyāraṇya lxxx ; cxvii
Vigraha-Vyāvartani-Kārikā xxxvi
Vikramāditya cxvii
Vikramorvaśī xlv; lii; xciv
Vinaya Piṭaka xxix
Vināyaka vi ; vii
Viśeṣādvaita of Śrīkarācārya clxxvii
Viṣṇupurāṇa xxii
Viṭṭhala cxx
Vohu Mano xxvii
Vyaṅgyārtha lv
Vyākaraṇa Mahābhāṣya xc
Vyāsa xciv
Weber clxxx ; i
Whitney iv ; cxxxi
Widow-marriage, in Manu's time ; cxliii; amongt ancient Germans cxxxii
Wilford cxi
Winter-solstice, coinciding with Māgha Amāvāsyā vi
Yajurveda Jyotiṣa clxxii
Yajus i
Yama-nakṣatra ii
Yamaloka, the location of ii
Yatibhaṅga clvi
Yazata xxvi ; cxxxi
Yazdani, G. clxxx
Yā-e-majhūl lxix
Yājñavalkya xci
Yāska ix; the editor of the *Nighaṇṭu* xvi
Yogabindu cxxv
Yogīndradeva xlvi
Yuan-chwang cxxvii
Zarathuṣṭra xxv; Spitama xxvi
Zend-Avesta xxii
Zodiac, lunar ii
Zoroaster xxvii
Zoroastrians, cleavage between Indian Aryans and x